THE

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Notes and Items.

A. A. MARKS, of New York, has just issued a little pamphlet, entitled "From the Stump to the Limb," which is of interest to those requiring artificial limbs, and will be sent to any address on application to him.

MRS. DELLA CREME: "What in the world is that awful racket in the library? Somebody being murdered?"

Mrs. Calvin (calmly): "No, that is my husband. He is discussing revision with Deacon Oldschool."—*Lippincott's.*

A DISCOURAGING ADDITION.—Cora: "Doesn't it make you feel nice for people to remark how well you are getting on?"

Merritt: "Yes, unless they add 'they can't understand it.'"
—*Lippincott's Magazine.*

A LESSON IN LANGUAGE.—"What are we waiting on, conductor?" asked a passenger from Chicago, when the train came to a stand-still.

"We are waiting on the track," replied the conductor, who was a Boston man.—*Lippincott's Magazine.*

NEVER FORGAVE HIM.—Mrs. Brown: "Our sex is advancing every day. They are beginning to appoint women in the small post-offices. They should have done that years ago."

Brown: "Not at all. They had to wait till the postal card went out of fashion."—*Lippincott's Magazine.*

AN exchange wants to know "How sleep the brave?" Oh, very well, thank you, except that it's getting rather hot and the mosquitoes are beginning to sing their doleful refrains about our venerable locks as we "sink to rest." Glad you feel enough interest in us to ask.—*Chattanooga Times.*

REV. ROARER: "Is it possible, Henry Bladams, that you have gone to the theatre?"

Henry: "Well, yes, sir. You see——"

Rev. Roarer (thunderously): "After the way I have described it to you?"

Henry: "That's what made me go."

WHERE THE JOKES GO TO.—"It's queer," said the man who contributes humorous paragraphs to the editor, "where jokes come from."

"Yes," replied the blue-pencil man, with a significant glance at the waste basket, "but it's easy enough to tell where they go to."—*Washington Post.*

MIXED IN THE DURATION OF TIME.—Jones was calling on his dentist. "So you are troubled with toothache?" inquired the artist in ivories.

"Frightfully."

"Ah! does it come frequently?"

"Every five minutes."

"And lasts some time?"

"A quarter of an hour at least."—*Tid-Bits.*

CALMING A MOTHER'S FEARS.—A boy with tears coursing down his cheeks was led by an excited woman, into the office of an east-side physician a few days ago.

"Can you save him, doctor?" demanded the woman, in a trembling voice.

"What's the matter with the boy, madam?" responded the doctor.

"He's swallowed some money."

"How much?"

"A cent."

"Old style or new?"

"New."

The doctor gave a sight of relief, and then, smiling upon the woman, he said: "Don't be alarmed, madam. Wipe the little fellow's eyes and take him home. He'll not die this time. But let me give you a bit of advice, madam. Make that boy of yours understand that if he must eat money he is to stick all the while to the lowest denomination."
—*New York Times.*

UPJOHN'S FRIABLE PILLS.

INASMUCH as our competitors have been energetically making mis-statements regarding our goods, trying to frighten practitioners from their use, we deem it but right for us to give a few of our friends an opportunity to speak for us in denial of the false statements made.

COHOES, N. Y., Sept. 11, 1889.
The U. P. & G. Co.,
Gents: Your letter and also pocket case received. I am delighted with it. Like all of your goods, it is elegant and just my ideal of what a pocket case should be. I have long been using Upjohn's Pills and consider them handsome, well finished and always uniform and reliable. Rest assured that I shall continue to use them and will be more than pleased to say a good word for them at any and all times.
Very truly yours, C. E. Witbeck

N. Y., May 27, 1889.
The U. P. & G. Co.,
Gentlemen: We enclose herewith money order for amount of invoice of May 22. We shall be pleased to order of you when our present stock is exhausted. Your pills so far are giving perfect satisfaction.
Yours very truly, Thomas J. Keenan,
N. Y. Polyclinic, Hospital and Dispensary.

WATERFORD, N. Y., Feb. 1, 1889.
The U. P. & G. Co.,
Gentlemen: Enclosed please find check for amount of statement received. Your Quinine Pills give perfect satisfaction to our physicians; we have sold about sixty ounces within the past year.
Respectfully, John Higgins & Co.

NEWTON, N. J., July 5, 1889.
The U. P. & G. Co.,
Dear Sirs: We have used your Quinine Pills exclusively for the last two years, and are entirely pleased with them. Yours, etc., H. O. Ryerson & Co.

ELMIRA, N. Y., July 19, 1889.
The U. P. & G. Co.,
Dear Sirs: Case of granules received. I am very much pleased with the Upjohn Pills and believe the process will eventually revolutionize the manufacture of pills. Yours truly, F. B. Parke, M.D.

COHOES, N. Y., Aug. 23, 1889.
The U. P. & G. Co.,
Gents: Enclosed please find New York draft for invoice of July 31 for Private Formula No. 1332.
I must say that the pills are very nicely made and also work to a charm. Please note me 50,000 lots of same. Respectfully yours,
Jonas S. Ten Eyck.

NEW ROCHELLE, N. Y.
The U. P. & G. Co.,
Gents: I have found your case a great convenience and its contents have been very helpful to my patients. The case has already paid for itself *ten times over*.
Yours, E. W. Finch, M.D.

NORTH MANCHESTER, IND., Sept. 14, 1889.
The U. P. & G. Co.,
Dear Sirs: I have received the pills manufactured by your house (Special Formula) and I like them very much. When I need anything in your line I know where to get it. Enclosed you will find money order in satisfaction of same. Yours truly,
D. A. Goshorn, M.D.

TERRE HAUTE, IND., July 23, 1889.
The U. P. & G. Co.,
Dear Sirs: Recently when prescribing pills and granules, I have specified those of your manufacture. They have invariably given the best of satisfaction. Yours very truly,
Cort F. Askren, M.D.

SHELBYVILLE, ILL., Oct. 19, 1887.
The U. P. & G. Co.,
My Dear Sirs: The pills came to hand this morning; enclosed find P. O. Order for same. I am very grateful to you for sending them. I have always found your goods reliable. Respectfully,
Dr. A. M. Collins.

An Open Letter to the Medical Profession.

THE INFANT FOOD PROBLEM SOLVED.

NEW YORK, *May* 1, 1890.

The Annual of the Universal Medical Sciences for 1889, says: "*A perfect Infant Food is still a desideratum; such a food will probably be evolved in the mind of some manufacturer who understands the physiology of infantile digestion and the chemistry of milk. A substitute for human milk, to approximate the latter closely, should be made entirely from cow's milk, without the addition of any ingredient not derived from milk.*

"*But not alone do we demand that these Milk Foods contain the equivalent of the solids in human milk, and especially of the albuminoids derived from milk, but that the latter be gathered with the utmost care from properly fed animals, transported with the least possible jolting to the factory, maintained during its transit at a low temperature, then transferred to an apparatus for sterilization, and immediately after the latter has been accomplished reduced to the dry state, in order to prevent the formation of those organisms which Loeffler, Pasteur, and Lister have found to develop in fluid milk after boiling under an alkaline reaction. If such a preparation be put into air-tight and sterilized jars, all will have been accomplished that can be done to render the food sterile, and thus fulfil the chief indications in the prevention of the most serious gastro-intestinal derangements.*

"*Such a food, too, would have the advantage of being easily and rapidly prepared by addition of sterilized water, affording an altogether sterilized food.*"

To the *Medical Profession* at large, we submit for examination and trial the perfect Milk Food known as LACTO-PREPARATA. We claim that LACTO-PREPARATA is an *ideal Infant Food*, and that it fulfils the above requirements in every particular, except the partial substitution of cocoa-butter for unstable milk-fat. This substitution was made by advice of Prof. Attfield, London, who made extensive tests of its food value and digestibility in the London Hospitals for Infants.

LACTO-PREPARATA is made from cow's milk evaporated in vacuo a few hours after it leaves the udder. In order to have the product correspond in composition with breast-milk, sufficient milk-sugar is added to bring up the carbohydrates and reduce the albuminoids to a proper proportion (17 per cent.). The casein is partially predigested (30 per cent.), and the remaining portion is rendered like human milk in character and digestibility. The ingredients are perfectly sterilized and placed in hermetically sealed cans; the powdering, bolting, and canning are done in an air-tight room, all air entering and leaving this room is forced by a blower through heavy layers of cotton. LACTO-PREPARATA is adapted more especially to infants from birth to six months of age; *and by the addition of water alone represents almost perfectly human milk in taste, composition, and digestibility.*

Another product of our laboratory, which has been before the profession for a number of years, is CARNRICK'S SOLUBLE FOOD, which, as now prepared and perfected, contains 37½ per cent. of the solid constituents of milk, 37½ per cent. of wheat with the starch converted into dextrine and soluble starch, and 25 per cent. additional milk-sugar. For infants over six months of age it is perfect in every respect; for infants younger than this, LACTO-PREPARATA is more suitable, although *Soluble Food* has also been used largely from birth with most satisfactory results.

Samples will be sent prepaid, also pamphlet giving detailed description.

REED & CARNRICK,
NEW YORK.

OUR FIVE-DOLLAR OFFERS.

We will send any one of the following combinations:

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The Times and Register	$3.00
The Medical World	1.00
And any $2.00 Journal, Book or Instrument in America	1.00
	6.00

No. 2.

The Times and Register	$3.00
The Dietetic Gazette	1.00
And either The Brooklyn Medical Journal, The Medical Mirror, or The Therapeutic Gazette	2.00
	6.00

No. 3.

The Times and Register	$3.00
Minor Gynecological Operations. By Croom. Revised by McMurtry	1.50
Practical Electro-therapeutics. By Hutchinson	1.50
	6.00

No. 4.

The Times and Register	$3.00
The Medical World	1.00
" " " Visiting List	1.50
(The only list published which can be presented as evidence of claim in a Court of Law.)	
The Medical World Ledger of Monthly Balances	.50
	6.00

No. 5.

The Times and Register	$3.00
A Good Hypodermic Syringe	1.50
A Weinhagen Thermometer	1.50
(Both instruments warranted.)	
	6.00

No. 6.

The Times and Register	$3.00
The Earth Treatment. By Hewson	1.00
What to Do in Cases of Poisoning. By Murrell. Revised by Woodbury	1.00
The Self-lighting Pocket Lamp	.50
A Good Urinometer	1.00
	6.50

The Times and Register.

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Clinical Lecture.

TUBERCULOSIS.[1]

BY ERNEST LAPLACE, M.D.,

Professor of Pathology and Clinical Surgery in the Medico-Chirurgical College; Visiting Surgeon to Philadelphia Hospital, etc.

ONE of the most remarkable signs of advancement in medicine has been the tendency of finding the same cause as the starting-point of various affections, and hence of greatly simplifying the proper knowledge of the case. What we formerly knew as scrofulosis, coxalgia, white swelling, lupus, tubercular meningitis, etc., are now all classed under one head—namely, tuberculosis. Last, but not least, fistula in ano may be tuberculous.

Germs were found to be living bodies belonging to the vegetable world, and grow just as seeds do. A grain of corn falling on good ground produces fruit of its kind; but falling in unsuitable soil produces nothing. So with germs. They must find a suitable soil in which to grow or they do not reproduce themselves.

The old lady who is now before us has lived to a good old age, and has been protected from germs by her robust constitution; but, through hardships and exposure, vitality has diminished, and now she affords a good soil for the germs which she once resisted. This is a case of acquired scrofulosis. Every day we breathe the germs of tuberculosis, and the reason we are proof against them is that our lungs are not then a suitable soil for their development. What, then, is scrofulosis, bot hin the child and in this case?

These germs invade the economy and lodge in the places most suited for their development, and produce an irritation. The lymph glands are the most favorite seat of the trouble. Germs nestle in the gland, develop among the cells, cause an irritation, proliferation, and death of the cells. A cheesy or fatty degeneration takes place, and we have the first step in the pathological process. The process continues, and we have a tubercular abscess formed, which will, in time, open itself at the point of least resistance, just as was the case in this old lady.

When the process goes on beyond hypertrophy, you have this fatty degeneration becoming purulent, when it must be opened or allowed to open itself. When you do not interfere with these glands they suppurate; but when they are taken out with aseptic precautions the condition is removed, and union by first intention may be obtained. This lady is so old, and has so many suppurating glands, that we will not operate. All that can be done in this case is to stimulate her, improve her strength, and open the abscesses.

When a patient can stand it, these glands should be removed, for the longer they are allowed to remain the greater will be the chances of a general infection of the lungs, and the risk of miliary tuberculosis.

I next bring before you this robust looking man, whose cervical glands all along the deep jugular vein of the left side are enlarged. There is a long string of glands, and great care must be exercised in their removal. An incision is made along the anterior border of the sterno-mastoid muscle, and the glands are exposed.

This case has already waited too long and the glands have begun to suppurate. The glands are usually attached loosely to the cellular tissue, unless there has been previous inflammation, and it is better to remove them by the fingers than by dissection. Gentle compression will check all hemorrhage; but we should use the hemostatic forceps when necessary. Strict antiseptic measures will be observed, and I will

[1] Delivered, April 12, 1890, at the Philadelphia Hospital. Reported by W. B. Stewart, M.D.

recommend that a 10 per cent. solution of iodoform and ether be applied to every part of the wound. In this way the iodoform penetrates every nook and corner. The body heat causes the iodine to be liberated, and this kills the germs. This should be done in every case.

Simply sew the wound up with a deep suture, to hold all the parts together, and a continuous suture on the surface to cause perfect union. A continuous suture expedites matters. Place a small drainage-tube in the wound. Dress antiseptically, with a dry iodoform dressing. The deep suture will relieve all strain on the superficial sutures, and no scar will remain.

COXALGIA.

This little child has the very same affection as our last two cases, although different in appearance. These germs of tuberculosis, instead of invading the lymphatic glands of the neck, have invaded the hip-joint, and developed the disease known as coxalgia. These very same germs developed in the cartilage and ligaments around the head of the femur, caused vegetations, irritation, and destruction of the white corpuscles, that come there by diapedesis. A large, disintegrated mass is formed, which will find an exit in time.

It has been a mooted question just when to interfere with tuberculosis of the hip-joint. The indication is to operate just as soon as fluctuation can be detected. When pus is present it is best to remove it. In this case we can tell this much—we will find disease vegetations and the so-called "pyogenic membrane."

A point to be remembered is this: The presence of pus is the result of a pathological condition; for pus may be produced in the hip-joint just as in any other part of the body, as the bone is freely supplied with blood-vessels. This case belongs to a class of operations that are not brilliant, for we cannot restore the diseased joint to its natural physiological condition. We can remove the local trouble but not the diathesis. The present operation may result in a tubercular focus starting in another part of the body. An incision is made over the right hip-joint, and a free flow of pus results. Mucoid degeneration of tuberculous tissue and vegetations are all scraped away with the curette. As much of the dead bone is removed as is deemed necessary.

The focus of the disease having been removed, it is hoped that the remaining carious bone will be restored to a healthy condition; and we will trust to nature to heal the wound with healthy granulations.

Original Articles.

A FURTHER STUDY OF HERNIA.[1]

By A. W. RIDENOUR,
MASSILLON, OHIO.

THE study of hernia is one of the most interesting, one of the most important, and one of the most frequent of all the subjects the medical man has to contemplate. This is rendered so by the great number of cases existing, and the great amount of suffering endured by those so afflicted. I trust, therefore, that I need hardly apologize for again bringing it before you. It would hardly become me to tell you that I will instruct you in this paper; but my experience since last appearing before your body with a paper on this subject has been instructive to me, and I always deem it the duty of medical men to give their brethren the benefit of their experience, be it for weal or woe.

An earnest, thoughtful study of this subject is necessary "ere we can hope to arrive at a satisfactory conclusion as to the best permanent relief combined with absolute safety." This is and should be the ultimate aim of our endeavors.

We cannot hope to accomplish this in a day, nor by rash attempts, without a thorough understanding of our subject in all its bearings. A thorough knowledge of the case, a thorough knowledge of the procedure necessary to effect permanent relief, must be prerequisites. Downright earnest work is as essential to success in this as in everything else.

We shall devote a brief time to the discussion of the symptomatology and diagnosis of the various forms of hernia, including in this description some conditions that modify and change the character of a hernia after it has passed the inner barrier. We will next discuss the mechanical treatment, including under this head the prognosis as applied to those changes that occur during the progress of a hernial protrusion. The consideration of treatment other than mechanical will be then noted, giving a synopsis of the modifications adopted by different operators.

In discussing symptoms of hernia, it will be necessary to bear in mind the various forms of hernial protrusion, as the simple, oblique, inguinal, femoral, umbilical, etc. A tumor is usually noticed on inspection, although in rare instances a small knuckle of bowel may be present in the canal (having passed the internal ring), and may even be strangulated and no tumor be found. The tumor will have an elastic or doughy feel, as there is present fluid in sac or not; will feel dense and inelastic, not doughy, if omentum be present alone. Where slight strangulation exists, in addition to pain and digestive disturbance, the parts, as skin and connective tissue, will show evidence of slight inflammatory action. The parts will be more sensitive; skin with a slight blush; the tumor will feel more tense, more elastic, *more immovable*. Slight anxiety will be shown on countenance of patient.

The location of the tumor will guide you somewhat as to the variety of hernia, although a femoral hernia may be mistaken for an enlargement of one of the femoral glands; but, in general, the greater density of a glandular enlargement, combined with the entire absence of all digestive disturbance, will serve to distinguish, especially as the density, if a hernial protrusion, would be indicative of slight strangulation, and there would be added an elastic, tense feel to the tumor, besides the *immobility*. The size, if omentum, as it may closely assimilate a tumor, would also serve to distinguish, as an omental tumor is rarely so small as an enlarged gland.

Too much stress should not be placed on the reducibility of a hernial tumor as a distinguishing feature, as many hernias are not reducible. The symptoms and diagnosis of a severe case of strangulation are so plain they need not be repeated here; but the slighter forms—and I include in this category all those where *pressure* is a feature, either by a truss or an irreducible sac, or thickness and organization of sac itself causing slight congestion or severe of bowel, or irreduction of bowel, with constant pain and the usual resulting digestive disturbance—demands attention, and will be considered shortly.

The mechanical treatment of hernia dates back to the earliest trace of man. In the caves of prehistoric

[1] Read before the Ohio State Medical Society, June 6, 1890.

man there has been found the remains of a truss: the supposition was that it was made in the Iron Age, as that metal evidently entered into its composition. A further slight evidence that the wearer was a laboring man was that the portion passing around the body was somewhat rusted. The remains of this truss were fished from beneath the débris of defunct bacterial skeletons. I merely mention the longevity of this truss to impress on your minds its early use.

Where a hernial protrusion is threatened—as indicated by pain in this region on exercise, with maybe a slight impulse on coughing—a truss, well-fitting, but not to exercise an irritative pressure, and applied over the cotton-gauze, silk, or flannel undershirt, should be at once applied and worn day and night. A duplicate should be worn when bathing.

When the hernia is recent, and presents itself as a simple hernial tumor, readily reducible, with rings or openings not too relaxed or large, and the muscular system not relaxed, a truss will be applicable, as above.

In children, in recent cases, it is advisable to apply a truss. While the kind of truss recommended is important, yet there are so many kinds, all having the same object in view—viz., the retention of the bowel—that it is only necessary to say, when the hernia is of such a character that one well-fitting truss fails, you will find all will fail.

The character of a rupture (with complications) is to be considered as the important element in affecting the final prognosis, and treatment other than mechanical, or with the combination of the mechanical and operative. It is unfortunate that all cases presented to your notice are not recent; hence, do not present the simple forms we have glanced over.

A rupture may be old; the sac and pillars, canals, and rings may have undergone changes that you find necessary to recognize, and which will determine your line of treatment. In recent cases the sac is merely a prolongation of peritoneum; but, sooner or later, it becomes thickened, organized, loses its smooth, shining structure internally and externally, and forms dangerous adhesions, both external and sometimes to lumen of bowel; becomes irreducible—a fixture. The bowel soon recognizes the difference between returning surrounded with the smooth surface of sac and the condition about to be described. When the sac becomes irreducible, the bowel begins to create slight friction in its passage over it, and this friction begets congestion, with diminution of the secretion; soon followed by thickening of the sac, organization, especially at the internal opening; the bowel finds greater difficulty in returning, and soon you have a mild case of strangulation from pressure by the sac. This condition is not always coincident with irreducible bowel; but is invariably associated with *pain, severe, aggravated at each attempt to wear any kind of a truss.* The patient is a constant sufferer from indigestion, obstinate constipation, becomes nervous, and is a good subject for suicidal mania.

To advise a patient to wear a truss under such circumstances is pernicious, and entitles the one so advising to the suspicion of ignorance at least. Many of these patients persist in the attempt to wear a truss without medical advice, or resort to the truss-makers, who affect to be able to cure them by means of their special contrivance. Ignorance is now associated with egotistical pecuniary greed, and the patient goes from one to the other, constantly growing worse, and, finally, one of three things takes place: either the bowel becomes in fact severely strangulated, or the attempt to wear a truss is abandoned, the bowel becoming irreducible, a fixture out, and the patient lives a miserable existence, with his whole energies, mind, and body concentrated on his rupture, to the utter exclusion of all business, all work; becoming, in fact, a dependant, living a mere existence; or, the surgeon or experienced medical man is finally consulted, who diagnoses, first, an irreducible sac; second, the conditions which naturally follow. It may be a matter, therefore, of the utmost importance to diagnose this condition, with a view to your intelligent prognosis and recommendation for proper treatment.

An adherent sac may be diagnosed. Replace the bowel; when, if the sac does not return, you will still be able to feel the membrane, the walls of which will glide readily over each other distinguishably between the fingers, besides being, in recent cases, even slightly thicker than the parts feel when entirely free from sac. Another diagnostic symptom is the slight prominence yet remaining of the parts after bowel has been replaced; and still another: persistence of pain in handling the parts.

I have thus referred to the *irreducible sac* and the conditions which follow invariably; there is no compromise, unfortunately. The pillars undergo changes in old cases of rupture; they become atrophied. This atrophy is gradual; but, nevertheless, certain, and, by involving all the muscles entering into the formation of the walls of the canal or opening, will facilitate the persistence and growth of a hernial tumor to prodigious size, and is due not so much to the hernial pressure direct as by the interference of circulation, both arterial and nervous, from an ill-advised truss. This atrophy will clearly modify your treatment also, as will, later on, be discussed.

The canal, in old cases, becomes materially shortened, but its width is increased in proportion. The length from internal to external opening may be only the mere fraction of an inch, but it may be one, two, or more inches wide. The rings become relaxed, dilated from a fraction of an inch to two or three inches, and become by atrophy a mere thread.

In a femoral hernia, the anatomy of the parts being somewhat different, there is not so perceptible a difference in the outlines of the external opening, owing to the more inelasticity of Poupart's and Gimbernat's ligaments. The pillars are here also more tendinous in structure, and will modify your treatment, as we will endeavor to show in the proper place. You will not notice so perceptible an atrophy of the structures entering into the formation of a femoral hernia, and hence your tumor will not grow to the large proportions found in inguinal. The sac will, however, undergo the same changes.

In umbilical hernia, the condition of the muscles and musculo-tendinous structure, entering into the formation of the walls of the opening, will allow of the largest sized protrusion of bowel or omentum, or both.

Before we pass to the proper treatment of hernia other than merely mechanical, it may be considered important to consider the contents of the sac; as, while it will not affect the outcome, it will affect or modify the treatment. The sac may contain bowel alone. It may contain omentum alone. It may contain both. When bowel alone is found, the case is clear. When omentum alone, active or severe strangulation probably never takes place; but an irreducible omental hernia is the rule, with scarcely an exception. The omentum does not wait for the sac to become first adherent, but adhesion between the meshes of omentum occurs on short stay beyond the

limits of the internal ring, and the mass must either return *en masse* or remain out, which it generally does. The truss business works well here in creating disorder.

The combination of bowel and omentum is an unfortunate one. Active strangulation of the bowel will soon follow, with irreduction of either, and care is needed in your operative procedure to not lose sight of the bowel feature; in fact, this complication exists so often that bowel should always be searched for in every case of omental hernia.

The prognosis of simple recent hernia, when seen at once or early, say within a month, in children or adults, or between the ages of birth and fifty-five years, is good in so far as death is concerned, provided a truss is worn constantly, or, at all events, when the patient is in the upright position, and continued through natural life. Can we hope for a relief in these cases with the truss? Yes, for a while; but the child who has a rupture, and after treatment with a truss for two, or may be four, years is considered cured, will, when arriving at adult, or may be middle, age, have a return, may be sooner; this applies also to the adult when reaching old age.

The prognosis in old cases, or those not attended to properly where changes have taken place in the sac, or the hernia is large, scrotal, irreducible, painful, or when truss will not readily retain sac, bowel and omentum, or in the condition I have dwelt upon above, is bad, very bad, and these are the cases that demand something more than the truss treatment. A combination of operative with mechanical means. It may seem strange that this combination should be recommended. Why not depend on the results of the operative alone. Now, while not in the least detracting from the purely operative, it is necessary to show cause sufficient why a combination is better, in some cases, at least, but certainly not imperative in all; but in the old, always; in middle life, where the patient is a laborer, or of active habits; in the young adult for the same reason; in childhood, after the tenth year, for the same reason, it is imperative. In women, whose habits are not so active, the combination may be omitted, as the closure of opening is usually better done, owing to the necessity of allowing no pressure on the cord or vessels in the male. I usually, however, advise the combination in the female. You will remember, I noticed the atrophy of the pillars in cases of long standing, that is, in those not classed under the head of recent. Now, union between opposing atrophied pillars, and between atrophied muscular walls of the hernial opening, is certainly not so firm as it would be between muscles of full tonicity, and it makes no difference whether you interpose granulative tissue, or unite skin to pillar, that union is not, and cannot be, firm under this condition; and, hence, will sooner or later give way. I will not apologize for admitting that experience has made it necessary to depart from the purely operative in these cases under consideration, and classed as above. You will remember that in my former paper stress was laid on the purely operative, except in very old people. I now, for the above sufficient reason, advocate, or rather practice, the combination plan.

In discussing the operative procedure as a vital part of the combination plan of treatment, we will premise all the usual description of the scrub brush, by saying, use thorough cleanliness and strict antisepsis in performing the work and conducting the after-treatment.

The incision varies in length from two to four inches; the dissection is carried down to the sac, which is opened carefully, exposing the contents. If bowel is present alone, it should be returned, unless in case of gravest form of strangulation, of long and dangerous continuance, when, if after exposing more of it than is included in the strangulation (after enlarging the seat of stricture) to the influence of hot cloths, the vitality does not return in the least, it should be resected; but as this will, in all probability, result in the death of the patient, it should certainly be a *dernier ressort.* It is astonishing the vitality of the bowel under such circumstances, but there is a limit, and subsequent ulcerative enteritis, with perforation and death, is to be taken into account. It has been my misfortune to lose one such case, as result of delayed operation from mistaken diagnosis on the part of the attending physician. Should the contents prove to be omentum alone, it should be ligated first internal to internal ring, or, after pulling down, to healthy omentum; the stump returned after all bleeding has ceased. Where purely omentum and close adhesions have formed to sac, I do not hesitate to treat the sac and omentum as one, but should bowel and omentum both be present, expose the bowel in all cases, replacing it, then treat the omentum as above.

Having emptied the sac, what shall be done with it? The necessity for this question seems to arise from the diverse ways in which it is treated, for instance: It has been reduced bodily within the abdominal cavity. It has been left in the canal, where firm adhesions prevent its return. It has been ligatured, the hernial investment amputated, and stump returned. It has been ligatured, amputated, and then invaginated in the canal.

It has been drawn up upon itself, fixed as a bulwark against the internal ring. It has been twisted upon itself and left in the canal. It has been interwoven into the fibrous structures of the pillars.

Riedel ties the sac as high up as possible, leaving the ligatured portion below to help fill the distended canal.

Nusbaum, Sewel, and Czerny, tie the sac high up, and remove all below the ligature. Mitchell Banks favors the latter method. Ball twists the sac and leaves it in the canal. Bryant interweaves it in the pillars. We pause now and decide which of these different methods is the best. You all agree to do something.

Should the sac be forced from all its adhesions and ligatured high up, you will agree that the portion below the ligature will slough out soon. You will all agree that if you twist the sac sufficient to have it remain so, it will die and slough off. You will all agree that if you interweave the sac between the pillars sufficient to have it remain there, and any attempt made to close the wound it will slough off. You will probably agree that it will slough anyhow after interweaving, whether the wound is closed or not. You will agree that if you draw it upon itself and fix it as a bulwark against the ring, it will slough off.

It is favoring the rapid return of the hernia, to replace it bodily within the cavity. It is favoring the rapid return of the hernia to allow it to remain intact.

Then the alternative is left of cutting it off and thus doing away with it altogether. Now, we have the most sensible solution of the treatment of the sac—banish it. We will then loosen all adhesions, draw it down until you get up to healthy peritoneum if possible; suture it carefully at this point, cut it off immediately below, ligate any bleeding joints, or twist the bleeding vessel; then allow the sutured end

to glide within the opening; it is always preferable to use sterilized cat-gut for this suture, on account of its ready absorption. It may happen that from the density, thickness and intimate interblending, it is impossible to go up so far as to reach healthy peritoneum, you will then go as high as possible. I will illustrate this impossibility by this specimen of sac I now show you. You notice that at the point of amputation, the sac, or rather neck of same, is fully one-quarter inch thick; it was so firmly adherent as to be impossible of moving, hence I was forced to cut it off, after suturing as described. This specimen was obtained from a gentleman, aged sixty-eight, who suffered for years from an irreducible sac; latterly, finding life a burden, and not being able to wear a truss any more, for obvious reasons, connected with the sac I have above shown, consulted me with this result; here is the sac, and the patient, now a happy man, with good appetite, works on his farm every day, and wears a truss as a precautionary measure. You will notice a small sac lying in the bottom of the bottle, this was obtained from a young lady with marriage in view, who told me "She did not want her man to marry a cripple." She is now well, happy and wears a truss, although it was not necessary to wear one in her case, as the rupture was small and the pillars firm; openings closed firmly and readily. Before the operation she wore a truss with difficulty; pained her, and bowel persisted in escaping to side of truss.

Having disposed of the sac, we will examine the canal and pillars. It is better to remove all superfluous aneolar tissue in the canal; in fact, I do not hesitate to remove the sides and roof of tunica vaginalis, even the sheathes of the pillar muscles; removing with curved scissors the membranous rings, cremaster muscles; bringing thus bare freshened pillar wall to bare pillar wall; a little time spent here in thoroughly doing your freshening and cleaning the canal and muscles is well spent; and avoid injuring the cord and accompanying vessels in the male and the round ligaments in the female, or the larger vessels of a femoral hernia; if in the latter, do not waste your time freshening Poupart's or Gimbernat's ligament, as they will not unite, neither will the cordy, tendinous structures immediately above them.

The next step in the operation is closing the wound. I am aware that a decided difference of opinion exists in this. There are those who attach the utmost importance to the open, or, at least, partially opened method. They allege that by suturing the integument to the pillars on each side, and allowing the bottom of the wound to heal by granulation, the result will be better, that the hernia will be less liable to return. This is, as yet, a matter of opinion, as the method has not had the inexorable test of time and circumstances, hence, no positive opinion should be predicated on assumptive evidence; allbeit, success seems assured. There are objections to the open method that will bear discussion. The first is as to the firmness and permanence of granulation tissue. In general, granulation tissue is extremely liable to accidents and disease. How often do old wounds of soldiers and others, that have healed by granulation, open out again?

How many of you have not seen cases of erysipelas causing wounds to re-open after months of apparent security?

Granulation tissue is tender, the experience of the old soldier with granulated stump attests this fact. No artificial limb can be borne. Should a rupture recur a truss could not well be worn, the condition of the patient then becomes pitiable. Wounds that heal by granulation heal slowly. There is a vast difference between direct union between the pillars and the interposition of treacherous granulation tissue, in addition to the absence of the more tender integument.

The cicatrix resulting from direct union is not tender, is much firmer, and a truss can only be borne without pain or inconvenience when direct union is obtained. In additon, the impression made on patient and friends is different in the open method. You have a ghastly, unsightly wound staring them in the face for weeks, which will scare friends from undergoing the operation. In the direct union you will find patient and friends cheerful. It is not a fact that in direct union the danger of septic poisoning is greater. Sirs, the directly opposite is the truth, the whole truth, and nothing but the truth. The wound heals at once, and there is no chance for septic poisoning.

You have thoroughly cleansed the bottom of the wound, brought the pillars into exact apposition, placed strands of catgut over the pillars, allowing them to protrude at lower end of wound. Catgut is one of the very best materials for suturing the sac and pillars, better than silk even; it will hold sufficiently long for union to take place, and there is avoided that danger from non-absorption. And above all else avoid trying to form a new canal for the cord and vessels, as advocated by an Italian surgeon. Italy is reponsible for many innovations, this is one of the newest and one of the most treacherous of her exports. Place your sutures at intervals of half an inch and commence at upper end of your incision, ending at lower, and you will not regret prefering direct union to unsafe granulation tissue.

In femoral hernia, use deep and superfical sutures in one, to cause the integument to unite to the parts, beneath. An early operation in umbilical hernia is advisable for obvious reasons. An acute strangulated rupture should be operated on at once, and right here let me interject a word regarding that miserable subterfuge—taxis. Suppose you should finally succeed in reducing the bowel, you are only prolonging his agony; operative relief must come sooner or later, and the sooner the better for that patient's health and happiness.

The question now arises, Will we let the patient go about his business without any precautionary support? In children, a support may be unnecessary, but in the adult, if a laborer, or one who is active on his feet; or in the aged; or in cases of long standing, where the pillars and muscles are atrophied, it will be necessary.

The union between atrophied muscular tissue is easily torn. The support may be a band around lower portion of abdomen, but a light truss is, perhaps, better, worn in day-time along with only light pressure, merely sufficient to keep the bowel from infringing on the internal surface of the cicatrix, or slight depression necessarily existing on the inner surface of the sutured sac; no amount of care in suturing the sac will entirely prevent this depression, any one to the contrary notwithstanding; hence, it is better to efface the depression by a little gentle pressure from the outside. A light truss thus worn as a precautionary measure, will not cause absorption of the union between pillars or the cicatrix, if the latter is not granulation tissue, and not, hence, covered by normal integument; always, therefore, endeavor to save the integument; cause it to unite in the median line; this cicatrix is firm, and no truss will affect it in the least, neither will the truss increase the weak-

ness between the union of atrophied pillars, but when the pressure is light will actually strengthen them. I am fully aware of the opposite grounds maintained by some in this, but am prepared to bring the test of time in support of my position. I have operated sixty times for the relief of hernia; twenty-five times when severe strangulation existed; ten times when slight strangulation existed, and twenty-five times where no strangulation either by sac or rings existed. A few of the latter annoyed the subject simply from the difficulty in retaining the bowel with truss, and in a few instances, where bowel and omentum were present, but an early operation prevented any strangulation of bowel.

In three cases death resulted; two of them in operation for severe strangulation; one of these should have been operated at least three days before—I referred to it above; the other one was suffering from acute gastritis at time of the severe strangulation, an operation made at any time prior to this would have saved his life. The third case of death was for slight strangulation, caused by the sac; patient had local peritonitis and general ascites. The local peritonitis aggravated, if not caused, by persistence in the truss attempt; patient could scarcely walk; was very obese; weighed two hundred and sixty pounds; lady forty-five years; died on the seventh day from general peritonitis.

Fifty seven recovered. In none of these fifty-seven did any serious symptoms arise. Fever was an exceptional symptom; the majority had none at all; none had any severe pain; the wound healed in from one week to two in all; all were up during the third week.

Ten of these cases were double operations (both sides at one operation); fully one-half of the patients were females. I find in running up my results that I need not feel my labor has been in vain. My first operation for strangulated hernia was made in 1871; only slight attempt at closure was made in this instance, and the sac was replaced without ligation after being opened, and the bowel replaced. My sutures were passed to include the pillars, and skin tied externally. After one year, rupture returned, (patient was a hard-working man). I advised a truss, which he wore for the next ten years. Recently, this patient tells me, he does not need a truss any more, as the bowel does not return, but I told him to wear a light one, or band, while at work. Since then, my attempts have more and more assumed elaboration, with a view to better secure permanent relief, but I am still pleased with my first attempt. I have lately examined fifteen, whose operations date back five years, and of these I find eight are still sound, and have worn no support of any kind; all active working people, men and women; two of them past sixty. I have recommended all of them to wear a light support in future. Seven are failures in that a rupture has returned, and these seven wear trusses, and claim no discomfort, and can do hard work with no trouble whatever from the truss. None of these seven would have had a return had a light truss been recommended at once.

In nine examinations, after nine years have elapsed since the operation, four are still sound, with no rupture, not even an impulse or coughing; five have had a return of the rupture, they wear trusses which readily retain the bowel, and suffer no inconvenience. In two that I examined after ten years have elapsed since operation, one has a rupture easily retained with a truss; the other has no tumor, but an impulse simply claims the rupture was out, but that since wearing a truss does not show any more. All the cases are in an infinitely better condition than before operation. Then life was a burden—now a real pleasure. As one man said to me not long ago, "I would not take $20,000 and go back where I was before you operated on me." I have been told similar words many times by these patients.

Some ten years ago I attempted the Heitonian method of injecting the sac. I met with five failures in five cases, and have operated on all five since by the knife route. You will notice in the sac I exhibit to you, an ecchymosis well marked at the upper portion of the neck, this is sufficiently explanatory of the condition calling for an operation in this case. That condition must pain continuous and severe, with all the resulting changes in the general system which existed.

A word as to the silver wire suture. I have not enumerated it in the list of sutures in this paper, but you will remember I did in my former. I have dropped it altogether. As a buried suture it is a failure. Trouble is afterwards found in many cases—over half—in getting it out, to stop the constant discharge and irritation set up by it. As a superficial suture it is a failure. It is no evidence of weakness, I hope, when I tell you that I was led to use it by no less an authority than the writer of the paper recently read before a certain State Society, on Buried Animal Suture. I was happy in the use of the buried animal suture before I met him, or long before his paper, and am happy to find myself using it since.

Gentlemen, I have been at slight variance with the views I formerly entertained, in two or three particulars; but in the main, my views have not changed since my first operation. And I am just as earnest now as then. My experience has taught me to know that the right road is found, although there may be bad places in it, yet perseverance will enable you to reach the end.

I am sorry to have consumed so much of your time, but I promise not to bore you with a paper soon again. I have endeavored to note those cases that should receive an operation; all cases that are in any way disabled from work or business; that a truss will not readily retain, without pain or inconvenience; all irreducible hernias, or sac, or omentum, where annoyance is felt, and in those others above enumerated. The operation is not dangerous when not complicated with a severe strangulation.

In recent times the mortality following active severe strangulation has been materially lessened; the older statistics placed it at 68 per cent. (Connor). It is yet sufficiently dangerous to avoid; as may be done by a prestrangulated operation in cases where you are led, from above classification, to expect such a result sooner or later.

CLINICAL CONSIDERATIONS CONCERNING ANÆMIA IN YOUNG WOMEN, INCLUDING ITS TREATMENT.[1]

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THIS subject is one which appeals alike to the general practitioner and the specialist. The term *young women* is used to include those who have reached the age of puberty, and the few years which immediately follow it, special stress being laid upon this particular period since every pathologist, and every clinical observer with the most moderate

[1] Read before the Connecticut Medical Society, at its annual meeting in New Haven, May 29, 1890.

powers of observation, does not fail to note the all-important constitutional changes which are inaugurated as puberty is established. It is properly considered one of the critical experiences of life, and as the influences attending its establishment are more or less favorable, so do we see more or fewer complications affecting the general health of the individual. One of the most common complications which presents itself at this period is anæmia, the condition which engages our attention at the present time. The term is a comprehensive one, and includes, in this connection, not merely pallor of the skin and mucous membrane, but a general disturbance of the entire nexus of functions of the body; and though it is generally susceptible of relief, it may be the forerunner of serious or fatal lesions. It is, therefore, a subject which may well command our careful and earnest consideration. Its importance has been impressed upon my own mind by a not inconsiderable experience during the past ten years, both in private and public practice. It has been the custom of some writers, following the lead of Becquerel and Rodier, to consider that form of anæmia known as chlorosis —a form which is more common in young women than in any other class of individuals—as an entirely distinct disease; and Raciborski has attributed it to disorder of the sympathetic nervous system, but without a sufficient basis of fact derived from pathological investigation. It has seemed to me that such a discrimination was not warranted.

[NOTE.—It is not denied that there are cases in which the influence of the ganglionic system in the development of anæmia is very prominent in a causative sense. Such, for example, is the remarkable case published by Dr. W. H. Thomsen,[1] in which the disease was precipitated by exposure to cold and wet while menstruation was in progress.]

With the exception of the greenish discoloration of the skin (and no evidence has been adduced as to the particular origin of this discoloration), the symptoms are the same as in ordinary simple anæmia, and the same plan of treatment which relieves the one will also relieve the other.

Thomas devotes a chapter to the subject,[2] but his arguments lack convincing force, and his admissions only strengthen one in regard to the identity of the two conditions.

Virchow, Perls, Ziegler, and other German pathologists, consider the two conditions as identical.

On the other hand, there are certain conditions which simulate simple anæmia, from which the latter is to be sharply distinguished, and they are the more readily excluded, since they rarely occur at the period of life which we are considering, as may be seen by reference to the statistical tables of H. Müller, Coupland, Eichhorst, and Pye-Smith.[3] Such are pernicious or so-called idiopathic anæmia; Addison's disease, or disease of the supra-renal capsules; Hodgkin's disease, or pseudo-leukæmia; leucocythæmia; scorbutus, and the various cachexias of the chronic wasting or malignant diseases. For a study of these diseases I would refer to the works of Addison, Wilks, Bennett, Biermer, Pepper, Cohnheim, and others, for the literature is extensive.

Anæmia in young women is by no means limited to the rich or comfortable classes, as some writers seem to think. It is common alike among the children of the rich and the poor; those who love and care for their children, and those who are indifferent to them and neglectful of their wants. It may result from over-feeding or under-feeding, from confinement at school, in the house, or the workshop, and with overwork or an absence of work. A noteworthy fact in connection with this disease is its great prevalence during the winter months—that is, during the period in which women and children spend the greater portion of their time within doors. By far the greater number of cases which have been seen by me have occurred at that period of the year, and it has convinced me that herein lies a most important feature in the etiology of anæmia. Vitiated air within is the rule in the winter season, though there is such a wealth of pure air without. It is so in the tenement house, and the palace, the theatre, the church, the school-house, the workshop, and the factory, and terrible penalties are exacted in consequence. It matters little whether the poisonous element be carbon monoxide from imperfect combustion in stoves, furnaces, and leaky flues; carbonic dioxide and organic vapor from the crowding of too many individuals into a given air space; sewer gas from defective plumbing, or gases of decomposition from decaying animal or vegetable matter, from whatever source. The worst feature about poisoning of this character is that it is a continuous process. There may be no offence to the olfactory nerve; or, if there is, the patient soon becomes habituated to it, until she breaks down, or the return of spring compels a supply of pure air through opened doors and windows. In the case of carbon monoxide, which, in my opinion, is the cause of more anæmia—both in young and old—than any other one cause, there is direct combination of the gas with hæmaglobin, which, unfortunately, has greater affinity for this deadly gas than for the life-giving oxygen; and with the defective oxidation of the tissues, and the development of anæmia, there comes also diminished resisting power to disease germs in general.

The winter harvest of disease and death depends upon more than one condition; but you can rest assured that until we can fully appreciate and remedy this defect in the air supply of our dwellings, one of the most powerful causes of disease will continue to act, and all the drugs in the pharmacopœia will not neutralize it. Another important factor in the etiology of anæmia is bad food, by which is meant not only poorly-cooked or mal-assimilable food, but an excess of any one class of proteids to the exclusion of others. With young girls there is very often a great tendency to subsist upon hydro-carbonaceous articles of food, to the exclusion of the albuminoids.

Among the other important causative elements may be mentioned constitutional disease, including scrofula, tuberculosis, and syphilis, malarial poisoning, severe or protracted acute disease occurring as puberty is being established, and including the exanthemata, and disease of the lungs, pleura, heart, and kidneys, insufficient exercise or exhausting labor, and occasionally the various forms of nervous disorders, including chorea, epilepsy, the neuralgias, nervous shock, fear, etc. It may be objected that anæmia is but a symptom in many of these diseases, and this is true; but it is also true that in very many cases this symptom persists long after the original disease has disappeared.

Virchow propounded the theory, based upon post-mortem investigations, that anæmia was due to narrowness of the aorta, or insufficiency in the size of the heart. This may be a satisfactory explanation

[1] Trans. N. Y. State Med. Soc., 1867.
[2] Diseases of Women, Fifth ed., p. 978.
[3] See article Anæmia (J. H. Musser) in Wood's Reference Hand-book.

for certain cases, but, as W. H. Thomsen has said,[1] there are so many cases in which it does not apply that it cannot be considered as anything but an exceptional cause. In addition to the foregoing, there are certain conditions, or symptoms, which I have found almost invariably present in every case of anæmia in young women, and which are sometimes to be regarded as cause and sometimes as consequent or concomitant. These relate to the alimentary canal, and are as well marked as anything in the entire morbid situation. They consist in pallor of the mucous membrane of the lips, mouth, and pharynx, flabby condition of the tongue—which is covered with a nasty white fur, gastralgia, fermentative dyspepsia, obstinate constipation, with the occasional discharge of light-colored, pasty stools, and frequent recurrence of painful tympanites. The fæces show a deficiency in the biliary secretion; there is occasionally an aching or soreness in the hepatic region, and the odor of the breath is intolerably offensive.

The functions of the urinary apparatus are usually undisturbed; in fact, I do not recall any case, unconnected with nephritis, in which there was complaint of trouble in this viscus.

Comparative analysis of the urine in a series of cases of anæmia would furnish interesting data as to the variations in albumen, urea, uric acid, and the inorganic constituents; but such investigations, so far as I know, have not been made. Not infrequently there is profuse vaginal catarrh, and this, with the other symptoms pertaining to the genital organs, will be considered in greater detail, for it was these symptoms which brought many of my cases to my notice. The appearance of the skin is characteristic—it is pale, sometimes almost a waxy white; the nails are bloodless, and the extremities constantly cold and clammy. The conjunctival, nasal, and vaginal mucous membranes share in the pallor which characterizes that of the mouth and pharynx. The patients are constantly weak and languid, suffer much with headache, are incapable of any sustained exertion, and are apathetic and indifferent to their surroundings. Œdema of the ankles and eyelids is an occasional, but by no means constant, symptom. It is to be explained by the weakness and low tension of the vascular system in general.

In some cases there is emaciation, in others the subcutaneous fat may be abundant, or even excessive. Usually there is drowsiness, and a desire to sleep the most of the time; but in some cases there is insomnia.

[NOTE.—In a recent clinical lecture upon this subject by my friend, Dr. Thaddeus Reamy, of Cincinnati,[2] in which I have been pleased to find views which corresponded entirely with my own, a case is narrated in which insomnia was a prominent symptom. I think such a symptom is exceptional, however, and not customary.]

The heart action is feeble and rapid, as would be expected, and anæmic murmurs are not uncommon. As a rule, they have no serious significance, and disappear with the return of health. Another symptom which is frequently present, and a source of great disturbance to the mothers of the young patients, is amenorrhœa, or oligomenorrhœa (*i. e.* scanty menstruation), and very rarely polymenorrhœa (profuse menstruation).

If we give the subject a moment's thought we will realize that there is every reason why this symptom should be present. The menstrual flow is the visible evidence of congestion of the pelvic circulation. Menstruation means much more than this, but we need not discuss other considerations at present. If the pressure in the vascular system is low, pelvic congestion will be unlikely to occur, and little or no blood will be discharged, though there may be venous stasis and œdema in certain parts, as we have seen. Anæmia often occurs at the time when menstruation should be established, which, in our climate, varies usually between the twelfth and sixteenth years, and while it persists it is a sufficient explanation for the non-appearance of the menstrual flow. Instead of being regarded as an evil, it should be considered a conservative procedure on the part of nature, for, poor as the blood is, anæmic patients cannot afford to lose much of it, and if the loss were considerable, a very unfavorable complication would be added to the disease, which might modify the prognosis to no inconsiderable extent. Again, an undeveloped condition of the uterus and ovaries is believed by some writers (Perls, Thomas) to be not only the essential cause of the amenorrhœa in these cases, but of the anæmia as well. That such a condition of these organs may be a cause of amenorrhœa is undoubted, though menstruation does not depend entirely upon their integrity and normal development; but it would be difficult to prove that it was a necessary cause of anæmia. There are many cases in which amenorrhœa exists without anæmia. There may be anæmia with co-existing metrorrhagia, as Virchow has shown, and as many others could testify. Still, in a number of cases in which it has seemed to me proper to make a vaginal examination, I have found an undeveloped or deformed condition of the uterus co-existing with anæmia and amenorrhœa. It is not improbable that anæmia existing prior to puberty may so modify the nutrition of the pelvic organs that the establishment of menstruation will be delayed; but we still have much to learn upon this entire subject.

The condition of the blood in anæmia is an important consideration. Its tension in the vessels is lessened, for the central source of power—the heart muscle—being impoverished and weakened, the entire vascular system must suffer in consequence. The color of the blood in anæmic girls is a pale red, and it is watery—that is, hydræmic—in consistency. This means deficiency in red corpuscles, and consequent deficiency in hæmoglobin. If the anæmia is due to the absorption of carbon monoxide, as I believe is frequently the case, this would account for the destruction of the red corpuscles and the combination of this gas with the hæmoglobin.

The white corpuscles are increased in number, for the supply from the lymph ducts continues, however great be the destruction of red corpuscles. Many of the red corpuscles are very small (microcytes), and some are very large (macrocytes), and they may have a crenated or dentated appearance. These changes in the size and shape of the corpuscles have been very fully studied by Hayem, Osler, Mackenzie, Eichhorst, and others. The blood of anæmics also coagulates less readily than that of those who are in health. This would possibly indicate that the fibrinogen of the plasma was diminished, while the paraglobulin and fibrin ferment of the white corpuscles, which are in excess, were normal or superabundant. The albumen of the serum is increased.

The course of simple anæmia depends upon various conditions. With those who have no complicating disease the return of warm weather, when the air supply in the dwelling is improved, means an im-

[1] Wood's Reference Hand-book, article Chlorosis.
[2] See *Journal of the Medical College of Ohio*, May, 1890.

provement in the anæmia. With those who have the taint of inherited disease, the conditions are favorable to its development. With others, the prompt and continuous administration of suitable remedies, and the adoption of proper diet and exercise, will sometimes work wonders, even though the hygienic surroundings continue less favorable than could be desired. My experience has been particularly gratifying in dealing with this condition, and I have rarely failed to see evidences of improvement when the line of treatment which was recommended has been faithfully followed.

In my plan of treatment I have made no distinction between those who were chlorotic and those who were simply anæmic. As already stated, I believe that chlorosis and anæmia are essentially identical.

Prevention is better than cure, and many of the cases of anæmia are entirely preventable by proper attention to air supply, food, and exercise. Of course, this means a reform in house-building and in the habits of our girls which will be little less than revotionary, and I am not sanguine that such a reform will occur. Indeed, until the love of physical beauty has in it something of the passion which inspired the Greek nations—which, in the best days of their prosperity were the most highly cultured people, physically and mentally, the world has ever seen—there will be, in the majority of cases, a disinclination to submit to those irksome regulations by which physical beauty is acquired and retained.

The three legs of the therapeutic tripod, in the treatment of anæmia, are hygiene, diet, and drugs; and all are indispensable.

It matters little what has been the cause of the anæmia, the main requirement is the same for all, namely, improvement in the condition of the vital fluid. If the air supply in the home is imperfect, it must be remedied by improvement in the plumbing, by letting in more sunlight, by better ventilation, by less crowding—that is, more air space per individual—by a change of dwelling, if necessary. If the condition is traceable to an improper school-room or workshop, the girl must be removed from it. This may be difficult or impossible, but nature's demands are imperious, and this may be the only alternative. There should be daily exercise in expanding the lungs to their fullest extent, and that, too, in an atmosphere which is pure and wholesome. In most cases the daily inhalation of pure oxygen, which can now be readily obtained in most of our large cities, will hasten the return to health. Sun-baths and daily exercise by walking or riding must also be insisted upon. Horseback riding, for those who can afford it and are strong enough to bear it, is one of the best means of exercise; but neither this nor any other form of exercise should be too violent, nor carried to the point of great fatigue. With girls who are compelled to work, the work must be made as light as possible, and it would be far better to discontinue it altogether and allow mind and body to vegetate for a time. Sleep must be encouraged; one should go to bed early and get up late, and it would be well to take a nap every afternoon—or, at least, lie upon the couch for an hour. It is well to take a sponge-bath, with moderately cool water, on rising, and follow it with brisk rubbing of the entire body. The diet must be simple and nutritious. Tea, coffee, and alcohol are usually to be avoided, also fresh or badly-baked bread, and rich or indigestible food of all kinds. Albumenoids, in as great quantity as can be readily disposed of, are indicated, especially rare and lean beef and mutton, an occasional soft-boiled egg, and large quantities of milk. The latter, which is everywhere obtainable, is within the means of the poorest and is usually well tolerated, has been with me a mainstay as an article of diet in this disease. If one can succeed in getting a girl to drink two quarts of good milk daily, there is little doubt but that her condition will improve. There can be no question concerning the utility of iron in this disease. It is a component element of hæmoglobin. Hæmoglobin is the medium by which oxygen is distributed to the tissues. In anæmia we have a deficiency of red corpuscles, and consequently of hæmoglobin and oxygen. Iron stimulates the development of red corpuscles, and is indicated above all things else in anæmia. I have ceased experimenting with the various preparations of iron, having found in the combination of the sulphate with the carbonate of potassium, in the pills known as Blaud's pills, a preparation which leaves nothing to be desired from a pharmaceutical stand-point. The praise which was given to this preparation by the late Prof. Niemeyer was not extravagant. I begin treatment with one of these five-grain pills after each meal, quickly increasing it to two pills three times daily. The addition of arsenious acid is frequently beneficial, three to five drops of Fowler's solution after meals being an efficient dose. Almost invariably it will be necessary to relieve constipation, and I have found nothing better for this condition than one or two compound cathartic pills at night, with a saline before breakfast the following morning.

This laxative treatment must be continued, with suitable intermissions, as long as the constipated habit remains. Equally important is the regulation of the digestive function.

If there is fermentative dyspepsia, an occasional dose of salicine, or other suitable antiseptic, may be given before eating, while if the digestive power is feeble, we can afford great relief by means of one of the excellent preparations of pepsin which are now available, with or without the addition of hydrochloric acid. I have also seen great benefit from the use of hot water, a tumblerful being slowly drunk about half an hour before each meal.

I have reserved until the last the very important question as to the propriety of vaginal examinations and local treatment in these cases; and it is a question in which no little judgment and conscientiousness must be exercised. In general, I do not hesitate to say that such examinations should be omitted unless the indications for making them are very clear. If the anæmia with amenorrhœa occurs in one who has previously been in good health, and has menstruated a certain number of times without any particular abnormality, an examination is not indicated until a fair trial has been given to the treatment which has been suggested. I have many times adopted such a course, and have never yet regretted it. If anæmia occurs in one who has never menstruated, the previous health having been good, an examination should be deferred until the restorative treatment has been fairly tried. If the anæmia is relieved, and menstruation fails to appear after a few months, a vaginal examination should be made, presupposing that all the facts indicate sufficient maturity on the part of the patient for the establishment of the menstrual function. If anæmia comes with great disturbance of the menstrual function, and clear indications of disease of the pelvic organs, a vaginal examination is indicated, the same as if anæmia were not present. The age of the patient should not interfere with the performance of what is clearly a duty.

159 East Thirty-seventh Street.

Society Notes.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Special Meeting, June 17, 1890.

J. A. LIPPINCOTT, M.D., President pro tem., in the Chair.

CASE OF SUSPECTED VOLVULUS.

DR. BATTEN reported: On Sunday, June 8, I saw a man who had been suffering for several days with intense abdominal pains. There was sickness at the stomach. I gave him a quarter of a grain morphia sulphate and extract of belladonna every hour. That did not control the pain, and Dr. Pollock was called in consultation. We continued with the belladonna and the sulphate of morphia every hour, and a hypodermic injection of morphia every six hours. This quieted him. The morphia and belladonna were continued steadily, and when the pains became unbearable, morphia was injected. He continued in that way, with vomiting, until Friday. I omitted to say we injected warm water into the bowels. On Friday afternoon there was a passage of the bowels, and we omitted the hypodermic injection and the morphia and belladonna, and gave him Rochelle salts in small doses. Yesterday he had three hours sleep. Last night he slept all night. To-day he is well.

DR. BUCHANAN: I would like to know if any tumor could be felt?

DR. BATTEN: No, but the abdomen was very hard.

DR. LANGE: I would submit that Dr. Batten has given no evidence of intussusception; it might have been a case of ileus, a case of fecal obstruction, or of typhlitis; Dr. Batten has given no evidence of volvulus.

DR. BATTEN: It was an obstruction of the bowels. No hard matter came away after the bowels commenced to move.

DR. HUSELTON: I would be disposed to criticise the treatment. I cannot readily understand why he should resort to purgatives in such a case. Of course the opiates would be all right to allay pain and quiet the bowels. It seems to me that purgatives would hardly be proper in such cases.

CASE OF PUERPERAL CONVULSIONS.

DR. DUFF: About one year ago, I reported a case of puerperal convulsions to this society. I was called to see a young woman of twenty, about two weeks before the time of labor. I found general anasarca as well as urine loaded with albumen, and I treated her, as I indicated in my report, by giving her digitalis. About six days after, I was called to see her. She was taken in convulsions, which could only be controlled by chloroform. These we controlled for about twenty-four hours, when they returned. I then dilated and delivered her of a male child. The child lived about a week. The mother made a good recovery and did not have convulsions after delivery. Against my orders, she cohabited with her husband and became pregnant within three months. Before pregnancy her urine was normal. At four months I examined her and found considerable albumen. I then put her upon nitro-glycerine, one drop doses three times a day, with the result that the albuminuria disappeared. At six months the albumen returned, as well as the dropsical condition. She was again put on nitro-glycerine and there remained a slight trace of albumen during her whole pregnancy. She was confined last Tuesday morning; I applied the forceps, delivered her, and she has made an excellent recovery. I might follow this case with another almost similar in history, in which nitro-glycerine was used with as good results; but in a third case it did no good. Taking it all in all, however, my experience is that nitro glycerine is one of the best remedies we can use in these circumstances.

DR. CONNELL: Two such cases came under my notice. One showed about 10 per cent. albumen; this was at the beginning of the seventh month. In about two weeks I was called to see her in convulsions. Another case was one in which I was called by Dr. Hallock. In this case there was no albumen in the urine. The woman had reached full term and the labor progressed slowly but favorably; being first labor, of course it was a little tedious. During the second stage, she was seized with a terrific convulsion; during the time we were delivering her, which we did as quickly as possible, she had three or four convulsions. There was no trace of albumen in her urine.

DR. STEWART: Albuminuria, uræmia and convulsions during pregnancy are invariably ascribed to circulation interferences by pressure of the enlarged uterus. But it is worthy of note that abdominal tumors as large as the uterus at term, and occupying the same situation, do not entail these results. How can this be explained? It is to be remembered that pregnancy possesses other means to effect convulsions, namely, through the nervous system. In addition, discrimination is necessary, and all convulsions occurring during pregnancy, labor, and the lying-in, are by no means to be ascribed to, and treated as, the result of uræmia.

DR. GREEN: April 28, last, I was summoned to see a child six years of age, with typhoid fever. The patient remained ill with the characteristic temperature curves during twenty days. During the last six days, cerebral symptoms seemed to predominate, and about the time the fever subsided and the temperature became normal, the child seemed to convalesce rapidly, and seemed cheerful. On the twenty-second day, when I called, they told me the child had not spoken the past night, and had spoken but once since I made my visit the day before. She continued in this mute condition for six days without uttering an audible note. During this time there did not seem to be any unusual delirium, but about twenty-four hours before she began to speak she manifested considerable delirium of rather a cheerful nature. It was on the seventh day she began to speak, and within forty-eight hours she talked as usual. I think this case is unusual. The child made a good recovery, and is now apparently as well as before the illness.

DR. BUCHANAN: I have seen a case very similar to Dr. Green's. A child seven years old was attacked by typhoid fever, and passed through a typical course of fever lasting four weeks. The child was then unable to speak. It had no other cerebral symptoms whatever. In all other respects the case was an ordinary one. It returned to speech more gradually than Dr. Green's case, but finally completely recovered. I think it was almost a week from the time it commenced to say individual words until it was able to express its wants.

DR. HUSELTON: I have to report a case of dislocation of the hip-joint. The dislocation was that which is commonly known as the dorsal dislocation. The case had been seen and manipulated by another

surgeon, and in the manipulation the head of the bone had slipped into the thyroid foramen, an accident which may happen to any one of us, and which is not so readily reduced. On my third effort I succeeded in dislodging the bone, and it returned to its place with a snap so loud that I felt certain I had fractured the neck, but was glad to find that I had not. This is the third case of dislocation of the hip I have reduced by manipulation. The first one I had no difficulty with whatever. The second one I also succeeded in reducing without special effort. The patient made a quick recovery in this last case.

DR. MCCANN: This is not an uncommon accident in attempting to reduce a dislocation of the hip joint; in the effort to place the head of the bone in its normal position, unless there be extreme care exercised, it will be thrown into one of the other dislocations. Some years ago a man was struck on the back by a railway train, and sustained a dislocation of the hip, as well as other injuries. When he was brought into the hospital it was not appreciated that he was fatally injured, and an effort was made to reduce the dislocation. The effort most signally failed for a long time; finally the bone slipped into position just as the man was dying.

A post-mortem showed that not alone the fibro-cartilage around the periphery of the acetabulum, but a bony section at the superior edge also was fractured off. The specimen was not retained. It would have been of value. A few years ago a child of ten years was subjected to several efforts at reduction of the dislocation by manipulation. The head of the bone could be thrown into the thyroid foramen, and was apparently reduced, but as soon as the extension was removed there was an immediate reproduction of the dislocation, although a deformity did not exist. After two or three surgeons had made a number of efforts to reduce the dislocation by manipulation, the child was put in bed with extension by a splint, and eventually recovered. I am satisfied that this case—although, fortunately for the child, we had no opportunity to verify the opinion, for she lived—was also a case in which the cartilage, and perhaps some bone, had been torn off.

Occasionally, as has been demonstrated by Dr. Murdoch, dislocation which cannot be reduced by the ordinary manipulations will be reduced by a little traction. I remember one in which I was able, by my own unaided effort, catching the foot and pulling powerfully upon the limb, to replace the head of the bone in the socket.

DR. PETTIT: Two cases I saw in the hospital which were reduced by extension. One had been worked with a long time by a half dozen physicians and attendants, and there was failure to reduce the dislocation. While they were rigging up the rope and pulley arrangement to try, some one grasped the man by the limb, and by no great force, but simply by steady pulling for maybe three-fourths of a minute, the bone slipped into place. Since that time I have seen one other case reduced in the same manner after quite a good deal of manipulation without success, by extension without a great deal of force, but the force being kept up some minutes steadily.

DR. BUCHANAN: I recall a case in which efforts were made to reduce a dislocation of the hip in a railroad man by, I suppose, five or six competent surgeons, and, when they were through, the reduction was unaccomplished, and the opinion was expressed that it must be a fracture of the rim of the acetabulum neck, and that it was impossible to reduce it. Dr. LeMoyne requested to be permitted to put on an extension, and by extension and some little manipulation—not the ordinary manipulation, but manipulation during extension—he reduced this hip-joint. This man was on the point of being returned to bed with his luxation unreduced when the successful attempt was made.

DR. BATTEN: I had a case of dislocation of the hip, and could not reduce it. Dr. Emmerling, Dr. Dickson, and Dr. Reiter were present. The bone went into place with a snap under Dr. Reiter's manipulation.

DR. KŒNIG: I would like to ask if it might not be possible that the position of the rent in the capsule has much to do with the return of the bone—where the surgeon is not able to return the bone by the method of manipulation, and where the method of extension is readily followed by reduction of the bone, is not the location of the rent a factor in the case?

DR. MCCANN: What I wish to say is that, in the cases of extension, the patient being entirely under the influence of an anæsthetic, completely relaxed, the amount of force used was not great. In my own cases I did not exert a very great force, and it slipped in.

Another method consists in etherizing the patient, laying him on his abdomen on a table, and allowing the limb to hang down over the end of the table. The result is that, after a certain length of time, the muscles of the abdomen relax, and with almost no manipulation the head of the bone is thrown into its proper position.

DR. HUSELTON: A farmer sustained a simple dislocation of the shoulder. He was taken into the town of Harmony, where two surgeons tried to reduce the dislocation. They failed, and had the man loaded into a spring wagon and sent to my office, with a note asking me to call in some of my friends and attempt to reduce the dislocation, and, in the event of a failure, to send him to the West Penn Hospital. I said I would make an attempt to reduce it myself. I took the patient into my back office, laid him upon the lounge, and, standing behind him, I pulled and told him to pull, which he did; and I think the dislocation was reduced in about two minutes. Now these were competent men who failed with this case, and they seemed to have exhausted every effort. Therefore I think we should be very charitable indeed before we condemn a physician for failure to reduce a dislocation.

THREE CASES OF FATAL PERICARDITIS—WITH AUTOPSIES IN TWO.

DR. LANGE: I wish to report three fatal cases of pericarditis. The first was a large German, previously healthy, with no discoverable hereditary taint except that his mother had died of some lung disease at the age of thirty-two. The man was a cooper by occupation, and boasted of his previous excellent health. He presented, on examination, the usual signs of pericarditis except that of pain. He presented, in addition, the ordinary signs and symptoms of a slight fever. Pericarditis was suspected in this case, and, during the next three weeks under observation, it was ascertained to exist. This man died, of heart failure, on the water closet. The autopsy showed the heart to be the so called hairy heart. There were numerous and strong adhesions between the parietal and visceral layers. Other lesions consisting of organized bands from the visceral to the parietal pericardium of from a quarter to an inch in length, and as strong as the chordæ tendinæ. These

must have exerted a potent and pernicious influence upon the contraction and rotation of the organ. Still other bands were free at one extremity, which floated in the very limited amount of effusion. This was a tubercular pericarditis; and nowhere else throughout the body was tubercle discovered.

The second case occurred in an Italian, aged thirty-five, who had a left-sided, lower-lobed, croupous pneumonia, accompanied by a pleuritic effusion large enough to require tapping. In the third week, resolution not happening, the pneumonia became purulent, and thus developed the secondary pericarditis. On autopsy, the heart was found to be like the first, and the effusion to be small. The patient died while sitting on the edge of his bed.

The third case was an Irishman, a very active man, yardmaster at one of the railroads here. He came to my office complaining of shortness of breath and presented the signs, symptoms and phenomena of a mild fever. He had no pain, little headache, little backache, general malaise, anorexia, in short all the signs and symptoms of a slight fever, a pericardiac friction murmur, and a tumbling heart, but no enlarged area of cardiac dullness. Dyspnœa was his only complaint. He had it two months and it was growing. After two weeks he thought himself so well that we could not restrain him. He would leave his bed and go about his room. One Sunday morning he sent for a barber to shave him. He got up, sat on a chair, took the Sunday paper to look it over and fell dead. There was no post-mortem. From repeated physical examinations I believe the conditions would have been found as in the other cases. In pericarditis of gravity, which cases constitute the small minority, there is one remedy to which we at last arrive. This is digitalis. It is said that digitalis is proper to strengthen the action of the heart. My experience with these cases and others leads me to think that digitalis has very little effect in increasing the power of the heart in pericarditis. Another point is that death from pericarditis, which is usually ascribed to the size of the effusion when it is large, may be due rather to interference with the action of the heart by adhesion. It is my opinion that this latter is frequently, and that large effusions are rarely, the cause of death. Large effusions belong rather to those inflammations of the pericardium which complicate rheumatism and nephritis, and which are not fatal. When the effusion is large, what can we expect from digitalis? The interference in this case is not with contraction—but with the filling—the diastole of the heart; and this being purely a muscular relaxation is uninfluenced by digitalis. The only effect then that we should expect is that which would happen after the administration of digitalis, in, for instance, the granular degeneration of typhoid fever, pneumonia, or any disease of gravity and duration; and this, it must be confessed, is little. The effect, indeed, would be less, for even if the systole should be improved by digitalis, the diasole cannot be, and consequently the intra-arterial tension is not increased. On the other hand, if the adhesions constitute the obstacle to efficient contractions, we can understand how an increase of power in systole by digitalis might fracture, tear off, or free the parietal from the visceral pericardium, and thus allow an increased quantity of blood in the arterial system. But I have not observed this to happen, and the administration of digitalis for pericarditis is pregnant with disappointment, and is in striking contrast with its effects in heart dilatation.

The Polyclinic.

PHILADELPHIA HOSPITAL.

ULCERATION—SKIN-GRAFTING.

THE deeper structures of the body are separated from the air by a membrane—the skin—upon which is a growth of epithelial cells. When the epithelium is disturbed, an irritation is the result, and from this irritation come different reactions that will produce a certain amount of destruction, and then disintegration of tissue with slough, and we have left an ulceration. An ulcer is a solution of the continuity of the soft parts that has been contaminated by some micro-organisms, which find here a suitable soil for their development and growth. These micro-organisms irritate the surface, forming a substance called the *ptomaine*.

You all know that beer is due to the growth of a germ in a sweet solution; and, because the germ has grown, that sweet soil has changed its nature, and becomes what we know as alcohol. So also, in an abrasion of the skin, we have the serum of the blood, which is an albuminous and harmless fluid; but, when germs grow in it, it is no longer serum, but is disintegrated and acts as an irritant, and ulceration is the result.

Let us examine for a moment a section of the skin with a microscope, and what do we find? The upper or outer layer is the epidermis, which is composed of epithelial cells arranged in layers, and dipping down into the depressions between the papillæ of the true skin. Below the epidermis is a basement or limiting membrane, which separates the papillæ from the epithelial layers. The papillæ and true skin lie beneath this basement membrane, and each papilla is freely supplied with glands, nerves, capillaries, vessels, and hair follicles. Below this is fibrous connective tissue.

In an ulcer the mouths of the vessel are open, and, as a result of the irritation, there is a congestion, and the white corpuscles of the blood escape from the open vessels, and illustrate a phenomena called *diapedesis* (I travel through.)

A white corpuscle, from the time it has left the vessel, is a granulation-cell, and is an integral part of the surface of rosy granulations, and this is the reason we have a healthy sore. This would be the case and would remain so, if it were not that something destroys these granulations, and that something is a germ. The germ causes death of the cell, and, as a result of its death, we have what is known as *pus*. When you see a pus-corpuscle, it expresses the failure of a cell to be formed into tissue.

Suppose this has not been the case, and antiseptic agents have been used to prevent the micro-organisms from getting into the parts—the cell is allowed to perform its function, what happens?

At first the cell is round; it elongates and assumes the spindle shape, and finally forms a fibrous cell, and enters into the formation of tissue. In this way the ulcer fills with cells to the surface, and in time these granulation cells form a dense mass of fibrous tissue. Below are the fully developed cells, while on the surface we find the younger cells. When the ulcer has filled to the same level as the epithelial layer, all that is required to complete the healing process is to cover it with epithelium, and we have a true healed sore. How do we get this epithelium?

It can be obtained slowly or quickly. If you desire to wait, that epithelium can grow only from the sides of the ulcer by proliferation, and in several months

the cells will spread from the sides and cover it. But when you have to deal with a large ulcer, you cannot wait for this.

Reverdin taught us the *grafting* process by taking epithelium from the body and placing it on the ulcer. He took small bits of epithelium and implanted them over the ulcer; but this was a slow process. Following out the same theory, Thiersch brought it down to this: if you can transplant small amounts of epithelium, what is the objection to transplanting a large amount?" He simply cleanses a portion of the body and renders it aseptic, and peels off strips of epithelium in a sawing way, as you would peel a potato, and covers the ulcer entirely, and, if you have been aseptic, union will follow and heal completely.

You will find that the cases are selected, as it would be a vain endeavor to transplant epithelium upon a soil that is unsuited to its growth. The surface of the ulcer must be prepared.

First of all, see that the ulcer is filled to the surface with healthy granulations. Sterilize the surface with some antiseptic solution, so that, when the epithelium is put on, pus will not develop. The place from which you take the epithelium must be washed with ether and sterilized—that is, washed with acid sublimate solution.

In this old man before you there is a small ulcerated surface that I think can be covered with two grafts at most. An ordinary straight scalpel is taken, and a graft, three inches long by three-quarters of an inch wide is taken off and the ulcer covered with it. Spread the pieces carefully on the surface to cover the whole sore.

It does not matter if the graft is a little too large, for there will be a small amount of melting, as it were, and the mucous layer takes to the granulations; but the epidermis above is dead, and scales off like dandruff. By making the skin tense in removing the strips you lessen the pain to the patient, for no anæsthetic is required in this operation. The ulcer will then be dressed with sterilized gauze, and the dressing allowed to remain for three weeks. I might have dressed this ulcer with iodoform; but this man has a peculiar idiosyncrasy against it. What should be our guide in the subsequent treatment of such a case? Simply temperature and pain. Where there is no pain, leave the dressing on indefinitely, for the wound is doing well. What have I done in grafting this case?

I have tried to cut the very tip ends of the papillary layer, and I know I have cut them; for, if not, I would not have drawn any blood. Having cut the papillæ, you have gaping mouths of the vessels, which inosculate or anastomose with the gaping mouths of the vessels of the ulcer, and in this way obtain a true union. Eventually, when the sore is well, you will have this difference in the new skin from the surrounding skin: the absence of hair follicles, sebaceous and sweat glands, for you have not cut deep enough to obtain these structures.

What is true for this ulcer is true for all other ulcerations, such as those from burns or plastic ulcerations about the face or other parts of the body. Absolute cleanliness and antiseptic measures may seem to be a light matter; but it is better to be over careful than not careful enough in preventing the contamination of the ulcer with germs present in the air and surrounding media. As there must be some secretion from the ulcer, I will place absorbent cotton over the gauze dressing, to catch it and retain it in a healthy condition.

The healed ulcer will always have a weak skin, and it will tend to return in the same spot, and it is well to wear a compress bandage to support the parts.

[NOTE.—Three cases were thus treated before the clinic, and the dressing removed twenty-one days afterwards. The ulcers had completely healed under *one* dressing.]—*Laplace.*

CIRCUMCISION.

I will bring before you another case upon which I wish to perform the modified operation of circumcision. The indication for this operation is an irreducible prepuce, phimosis, or the existence of a venereal ulceration which cannot be reached when the glans is covered.

Von Bergman, of Berlin, has modified the operation of circumcision. His method consists in slitting up the prepuce over the glans, and trimming the two "dog eared" flaps according to the necessities of the case. No set rule can be followed for doing surgical operations, and a *set* rule is always contra-indicated. You must understand the principle and add any modification that the case may demand.

The man before you has chancroid posthitis and phimosis. We simply slit up the prepuce on the back of the glans; resect the "dog ears;" use a continuous suture of black silk, and stitch the skin and mucous surface together, and the operation is complete. He will have a prepuce left that will cover the glans.

This wound will be contaminated with the chancroidal poison. Chancroid is auto-inoculable, and one case is on record where one man was inoculated two thousand seven hundred times with true chancroid. This man will be given the benefit of the best antiseptic treatment: the acid sublimate solution. Acids will prevent the spread of a chancroid; hence the propriety of using the acid bichloride of mercury locally for a few days.—*Laplace.*

PYÆMIC ABSCESSES.

This woman, whose temperature chart is longer than herself, has been in the clinic a number of times before, suffering with a pyæmic abscess under the knee, that is now healed. The knee is so stiff that she is unable to walk. She has a fair appetite, and is now a well woman. This case illustrates to you that a dangerous case of pyæmic infection during labor may recover. We attribute her recovery to several things, not the least of which is the patient herself, as she had so much courage, and at no time did she give up. The treatment was stimulating from the first; all pus was evacuated just as soon as possible after it was detected. I think she has now recovered sufficiently that she will not need to come to the clinic again. It is now seven months since she was first taken ill. There is no reason why she should not continue to improve indefinitely.—*Davis.*

PUERPERAL DIPHTHERIA.

The next case is one of the same sort as the last one, and she is able to come to the clinic herself, in place of being carried here. She is a colored woman, and came into the house three months ago with a history of being delivered outside of the hospital amidst very bad hygienic surroundings. Examination revealed a severe diphtheritic septic infection from a diphtheritic ulcer on one side of the cervix uteri. The patient's baby became infected with septicæmia from the mother's milk, and died. The glands in the groin of the woman, on the side corresponding to the ulcer on the cervix, were enlarged, and were poulticed with linseed meal mixed

with water, which contained 2½ per cent. of carbolic acid. The diphtheritic ulcer was cleansed and carbolic acid and iodine, with iodoform, was used on it. The patient was stimulated and steadily improved, until she is now almost entirely well and able to appear before us without assistance.—*Davis.*

CEPHALO-HÆMATOMA.

I have here a case of cephalo-hæmatoma that is not recovering as it should. I will have the resident physician extract some fluid by an antisepticised needle of an aspirator, and will then use compression. The temperature of this child has never been above 100° F. It has been wearing a cap with a boric acid dressing over the tumor. The needle is small and nothing but bloody serum is coming from it. Only a few drachms will be removed, and this will amount to one-half the fluid in the tumor. Why not remove all the fluid at once? Because you do not want to lessen the pressure entirely from the walls of the tumor. If you are ever called in to see a man who cannot pass his water, and in whom the bladder is full, you must be extremely careful how you remove the fluid. When there has been long-continued cystitis and occlusion of the urethra, do not empty the bladder completely, for you will so derange the mechanics and physics of the urinary apparatus that you will cause blood to extravisate into the glomeruli of the kidneys and cause trouble. Take about one pint of urine out and inject a solution of boric acid. This analogy holds good in the case of this tumor, and also accounts for the benefit of injecting iodoform, ether, and oil into abscess cavities when pus has been drawn off.—*Davis.*

VITALITY OF CHILDHOOD.

This child came to the hospital on July 14, 1889, and is one of twins. Its mother is markedly tuberculous. This child has survived more dangers and complications than any child I have seen for a long time. It has had measles, bronchitis, gastro-intestinal catarrh, and furuncles. You see that a child may survive the ordinary complications of childhood in a large hospital and still live. It has had a diet of 1 part milk to 14 of water. At times we were compelled to resort to the use of barley water and alcohol. It has had little medication, but has been carefully watched. Every day it lives now is that much more in its favor for a long life.—*Davis.*

PYÆMIC INFECTION.

The next patient is a colored woman who is suffering with a trouble that some call septic and others rheumatic. The patient came in with a history of fever, pain, and malaise after labor. An abscess formed over the sacrum, which gave rise to fistulous tracks. We connected these by incisions and drained by means of soft drainage. Following this the temperature fell. Tenderness began to develop in the left elbow and wrist, with a slight rise of temperature, without a chill. The question naturally presented itself, is it puerperal pyæmia or rheumatism occurring in the puerperal state? I know of no absolute means of diagnosis. If we were to aspirate the joints, take a small amount of the fluid and make cultivations, we may arrive at a diagnosis. She is improving on anti-pyæmic treatment, and the abscess tracks have now healed, and she is gaining in weight. The joints have been enveloped in cotton. Salicylate of soda is a valuable remedy both for rheumatism and pyæmic infection; but we cannot be sure of the trouble that she has if it is given. The main point is to give alcoholic stimulants. I believe this case to be one of mild pyæmic infection.—*Davis.*

NURSING-BOTTLE.

Here is one of those nursing-bottles that comes in from the city. Nothing could be a more efficient breeder of micro organisms than this long rubber tube connected with the bottle. I show it simply for the purpose of condemning it. No child should nurse a bottle unless under observation; and when the meal is done the bottle should be removed. This habit can soon be taught the child. The great objection to letting the child have the bottle all the time is that it fills its stomach with wind from an empty or a half-filled bottle. Use nothing but a small rubber cap on the bottle that can be reversed and thoroughly cleansed.—*Davis.*

PAROTITIS.

We have an epidemic of parotitis in the puerperal wards. Parotitis during pregnancy may be uni- or bi lateral. All the cases were isolated at once—twelve or fifteen pregnant women — and treated symptomatically. Parotid abscess should put us on our guard against puerperal sepsis. Otherwise the mumps have given nothing more than trifling discomfort to the patients. So far as treatment goes, do not make any application that will affect the skin. Keep the bowels free; give liquid diet and symptomatic treatment. If abscesses should form, evacuate them at once freely with antiseptic precautions. Use the acid test as a means of diagnosing parotitis.

—*Davis.*

SAPRÆMIA.

This is a case of fever coming on two or three days after delivery. This woman was brought to the hospital after labor and was allowed to walk upstairs to her ward, and soon after manifested symptoms of fever. No cause could be found to which the fever could be referred. There was no tenderness over the abdomen, and no vomiting. At the present time there is no reason to account for the fever, unless it came from transportation and the exertion in walking upstairs. Temperature was 104° F.; skin fairly moist, and high pulse. I explain it thus: The muscular movements in the upright position have resulted in the absorption of a fibrin ferment that has formed in the mouths of the uterine sinuses, and this set up the fever. We know that absorption of bloody serum after abdominal operations will cause a marked rise of temperature. Careful antiseptic treatment with stimulation is all that is necessary. Now that we are so careful in all our operations and deliveries of women, we have nearly overcome this trouble.

—*Davis.*

CHARLES MARCHAND has issued a pamphlet giving the therapeutic applications of peroxide of hydrogen and glycozone in the treatment of diseases caused by bacteria. Peroxide of hydrogen has been pronounced by Dr. E. R. Squibb to be perhaps the most powerful of all antiseptics and disinfectants. Its harmless character and the absence of all unpleasant taste and odor render it an ideal germicide for use with children.

It appears to us that this substance deserves a much more general trial than it has as yet received; and to those who desire to know more of it we commend the pamphlet before us, which may be procured on application to Mr. Marchand.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, July 12, 1890.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.

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CALIFORNIA SANITARIA.

DR. WINSLOW ANDERSON has given us a useful work, in which he has collected a great deal of information concerning the health resorts of California. With the aid of this book, the physician who contemplates sending patients to the Pacific Coast can intelligently advise them as to where to go.

We need just such a book for Pennsylvania; where we have many valuable mineral springs, mountain retreats, lakes, pine forests, and other places specially designed by nature for sanitaria, but which are allowed to remain in obscurity for the want of trustworthy information concerning them and business enterprise to put their merits before the public. Some years ago the State Medical Society investigated this subject, but its report is buried among the proceedings, instead of being published in such a shape as to bring it into the hands of the public. And each summer thousands of our citizens go off to the sea-shore to contract malaria, enrich Jersey doctors and feed Jersey mosquitoes, when in our own State they could find resorts which are healthier, cooler, very much less expensive, and better-fitted for three-fourths of the invalids than the sea-shore. Somehow, the sea has got the popular fancy, and the mountain must wait for its innings until a change occurs. The majority of pulmonary complaints are, however, best treated by mountain air; hemorrhagic affections become dangerous at the sea-side; anemic conditions in general, and insomnia in particular, do best in elevated regions. For more than half of those who leave their homes in quest of health, the mountains are preferable to the shore; and for those to whom the choice is not material from the standpoint of health, the cheapness of the inland locations renders them most suitable.

But questions of suitability and cost are of really little import in attracting the masses. It is not the best located resort but the best advertised that wins the most patronage. Take Waukesha for instance. A comparatively flat and uninteresting tract, from which arises a number of springs. The waters contain about as much of mineral ingredients as any ordinary spring water; and of no special value.

Twelve grains calcium carbonate, seven of magnesium carbonate, less than one each of sodium carbonate and sulphate, potassium sulphate and silica, a bit of iron, just enough to spoil the water for plethora, a grain of common salt, and nearly two grains of organic matter to the gallon, make up the famous Bethesda Water of Waukesha. The only element of importance is the organic matter, and this is not specially conducive to health. Its presence is easily accounted for. The town lies on a gravelly soil, through which sewerage percolates with little alteration. There is no drainage in the town; and a walk in the early morning affords abundant proof of the purgative qualities of the water, and of the absence of sanitary conveniences. There is only the slightest possibility of any remedial effect being derived from the use of these waters; and until the town institutes a system of drainage, the water should be condemned. And yet the liberal use of printer's ink has sold enormous quantities of this water, and last summer drew over five thousand persons to the hotels of Waukesha. And in full accord with this is it, that none of the other Waukesha springs are as impure as the Bethesda; some of them having scarcely a trace of organic matter; yet as they are not advertised so extensively, they are scarcely known. Those situated on the outskirts of the present town are as yet quite pure; but it is only a matter of time, as the town spreads, when they will become as impure as the Bethesda.

The water from the Katalysine Spring, at Gettysburg, Pa., comes somewhat near the Bethesda in the quantity and nature of its mineral contents; with about one-third the quantity of organic matter, and the addition of borax, barium, lithium, strontium, nickel, cobalt and copper, in traces. Any good to be derived from the Bethesda can be equally obtained from the Gettysburg water, which is of greater purity. Annexed will be found the analysis of these springs in full, for comparison:

KATALYSINE. F. A. Genth, Analyst. U. S. Gallon contains	grains	BETHESDA. C. F. Chandler, Analyst. U. S. Gallon contains	grains.	
Sodium chloride	.65790		1.160	
" bicarb	.70457		.872	(carb.)
" sulphate	2.46776		.544	
Potas. "	.20836		.456	
Magnes. "	6 77940	Sodium phosphate,	trace.	
" borate	.03492			
" bicarb	.54260		7.344	(carb.)
Calcium "	16.40815		11.824	(carb.)
" sulphate	.83145			
" phosphate	.00679			
" fluoride	.00954			
Ferrous bicarb	.03585		.032	(carb.)
Manganese bicarb	.00669			
Barium Sulphate	trace.			
Lithium chloride	"			
Strontium sulphate	.00427			
Alumina	.00380		.120	
Silicic acid	2.03076		.736	(silica.)
Nickel bicarb	trace.			
Cobalt "	"			
Copper "	00050			
Organic matter	.70870		1.984	
Suspended matter	1.10069			
Total	32.54272		25.072	

THE first annual report of the Southwestern Dispensary, in Bethany Sunday-school building, Twenty-second and Bainbridge streets, for the year ending July 1st, shows that 1,150 medical, 1,107 eye. 136 surgical, 242 gynæcological, and 279 throat, nose and ear cases were treated, a total of 2,914 cases. The physicians' staff consisted of Drs. A. E. Roussel, H. J. Hansell, J. H. Bell, A. Hewson, I. H. Elder, and G. H. Macuen.

Annotations.

APOPLEXY.

THIS is coming to be a frequent means of man's "taking off." In 1885 there were 1,003 deaths by it in Massachusetts, which brings it forward on the list of causes to the eleventh or twelfth for that year, a larger proportion than ever before.

In 1860 the deaths by this disease were 1.93 per 10,000 persons living; in 1870, 2.70; in 1880, 4.19; and in 1885, 5.12 per 10,000.

The two principal conditions favoring the rupture of the brain vessels are the degeneration of their coats and the increased pressure within them. Of the causes of degeneration, the chief by far is the habit of alcoholisms. The pressure is increased by increase of corpulency, which forces the blood into the vesels of the head without increasing their surrounding support, as is the case everywhere else in the body. To this corpulency full living, with less muscular labor among our people, largely contributes. Herein is suggested the proper remedy.

LONGEVITY.

DR. T. VENNER (1638), in the "Correct Way to a Long Life; or, a plain, Philosophical Demonstration of the Nature, Faculties, and Effects of all such things as by way of nourishments make for the preservation of health, with divers necessary dieteticall observations; as also of the true use and effects of Sleep, Exercise, Excretions and Perturbations, with just applications to every age, constitution of body, and time of yeere," says: "To procure vomiting, urine and sweat by meanes of drunkennesse, as it is wicked, so it is also beastly. Moreover, by a remedie of kind, the hurt is farre greater than the help; for drunkennesse, besides that it doth extinguish the light of the understanding, causeth the Apoplexie and such other like diseases of the braine, and often a sudden suffocation. In a word, it doth by much more hurt all the parts and faculties of the body than any way help by evacuation of superfluities, as the barbarous Authors pretend for their assertion; for infinite are the hurts that drunkennesse bringeth unto man's body."

Letters to the Editor.

LETTER FROM DR. GARRETSON.

AS a continuation of my letter of last week, I have to tell you that the name of the third hotel is discovered to be the "Social." The landlord, as some one has told me, came down here six years ago, to die of Bright's disease, or of some other "dis" that was interfering with a state of desirable "ease;" but so antidotal has the salt-laden air proved that he has *gone about*—that, I believe, is the nautical phrase—and has trimmed his sail for the other direction.

A cool looking house with a wide porch about it, painted of a color to agree with a cedar grove in which it is set down, is, under any circumstance, a refreshing kind of an oasis to come across; but when one is half-sizzled and fried from a morning spent in an unshaded boat upon an inlet, and when, added to this, he is parched out by thirst, and wilted by reason of not having had a mouthful to eat since four o'clock in the morning, the oasis is found a something for which an appreciative man thanks the gods.

There is, in the case of this particular oasis, another "but." Mr. Kroger—this is the landlord's name—is an entirely dependable-upon man, as regards a glass of cool Rochester, or, better than this perhaps, a cold looking, dust-covered bottle, with promise within it of Egg Harbor's famous Iolink, or Franklin, '73. This good man is no sciolist in the direction of his business. He knows just when to ice, and when and where frigidity is out of place. He knows better than yourself what it is that is to meet the indication.

Doctors are partial to billiards. The sanded room led to by the porch among the cedars furnishes a good table. It furnishes more than this; the blue fish and sheepshead stories are something only a little less than fabulous; while recitals as to wrecks upon this wild Barnegat coast—these not at all intensified or drawn out—cause you to look with admiration and profound respect upon the actors in them, as these stroll in and out and are pointed out to you.

From the stories, one goes naturally to look at the life-saving station. This is a convenient building, furnished with the necessary appliances, having its location directly at a point on the coast where an endless line of angry-looking breakers impress the beholder as being on the lookout for luckless ships. A more responsible, more dangerous, or a poorer paid situation is not to be imagined than this occupied by Captain Ridgway and his heroic men. To get out of bed at midnight, and to take to an open boat amid ice and driving waves and blackness, is something to put ordinary courage into a childish comparison. Last winter three of these noble men lost their lives.

The oldest inhabitant has become to everybody "Uncle Parker." He typifies the "lone fisherman," or the lone fisherman typifies him. Uncle Parker has a real fisherman's home at the side of a sand hill that separates Barnegat's famous flash light-house from the inlet. There, summer and winter, he has lived for thirty years, spending the one season in hooking sheephead, the other in shooting duck. It seems to be a lonely life, but the old man evidently enjoys it, as do a dozen or sixteen cats which are always about him, or in his lap when the "evening pipe is lighted." A good wife shares his discomforts and doubles his comforts.

The principal men of the place—being everybody's friend, and everybody being their friend—are Mr. Boice, proprietor of the Oceanic Hotel, and Mr. Butterworth, the postmaster and general merchant of the locality. These two gentlemen seem to have, as the meaning of their lives, the making of everybody comfortable. The Oceanic is a hotel numbering two hundred rooms. It is not at all the place to go to if dissipation, rather than health, is the object. The house is one of rambling architecture and proportion. The piazzas are broad and long, and take in a sight of everywhere. There is an entire absence of weari some formality, but there is no want of that refinement which is the comfort of a gentleman's home.

The store and post-office is the place where everybody goes every day. A board walk leads from it in one direction to the beach, and in another to the hotels and cottages. Here one finds about everything one needs. Mr. Butterworth knows all about fishing lines, and is never without one to lend to the latest comer. He knows, too, about everything you may want to know as regards the whole Barnegat coast. Better even than these, he is a man who makes you feel that in troubling him you confer a

pleasure. If you, or any of your readers, come to this place, be sure and make the acquaintance of Mr. Boice and the postmaster.

"Are there any green-headed flies?" queries one of the readers of THE TIMES AND REGISTER through a letter.

Some.

Another of your subscribers asks about "mosquitoes."

Some, also.

"Is not the ride to Barnegat a long and dusty one?" inquires still a third, whose letter bears the Germantown postmark.

It takes two hours and a half to reach here from Philadelphia. If one cannot afford a dollar duster, a good time to come is after there has been a shower.

One asks what kind of a place it would be for a half dozen young doctors to club together and come to.

I would recommend it warmly. There are several small cottages furnished, and ready for such a company, that can be rented for a song. The bay will furnish the kind of food said to be good for making brains—a matter worthy of consideration by all of us who are of the cloth.

I am to give myself six weeks here. Three are already gone; although it seems to me that my flannel shirt took the place of my ironed one only yesterday. I do not know how my physician will esteem me to be looking when I get back to town; but I feel like cast iron—metaphorically.

BARNEGAT CITY, ON THE BEACH AROUND THE BLUFF.

INJURY TO NOSES.

THE following item in a daily paper attracted our attention, and a note to Dr. Saunders brought this description of a very interesting case:

"During a baseball game at Scranton, Ia., the other day, Everett Phillips was accidentally struck in the face with a bat, completely flattening his nose. The doctor pulled the member back into position, placed a tin cornucopia over it to keep it in form, and Everett is now known among his fellows as 'the man with the tin-nose.'"

The newspaper report is badly exaggerated. Young Phillips was struck with a *ball* on the right side of the nose, causing displacement of both nasal bones to the left. The articulation of each nasal bone with its fellow was intact, but disarticulation had obtained at every other point. Lateral pressure on left nasal bone rectified matters, and reduction was maintained by a strip of tin bent at the end, so that it did not slip when traction was made upon it: this was caught or placed over left side of nose, brought upward and outward over opposite brow, then well around the head, and kept in place by a roller bandage. The dressing was necessarily somewhat inconvenient, which hastened its removal in twenty four hours, but left a good result.

I wish this could have been of as much interest as the clipping has made it.

WM. J. SAUNDERS, M. D.

SCRANTON, IOWA.

OCEAN CITY.

IT pleased me much to read amongst your "Notes and Items" the fact that Drs. Kynett and Thatcher are at Ocean City.

Ocean City is a quiet summer-resort, just the place for a physician to enjoy himself. The bathing is far superior to that of Cape May or Atlantic City; and the sailing is spoken of by all as "grand." Crabbing, fishing, and gunning are much enjoyed by the "sports" of the profession. Would that many more of the profession could hear of this lovely resort. Once having visited it, they would continue to do so year after year. I am one who has visited Ocean City every summer for years.

WM. L. ROBINS, M.D.,
Resident Physician.

Hospital of the Good Samaritan,
BALTIMORE, MD.

CORRECTION.

PERMIT me to call your attention to the fact that your *retention* of the modern languages, French, German and Scandinavian, as *alternates* for the Latin, on page 564, is not correct.

You publish it just as the Committee reported it for the action of the College Convention. But, after considerable discussion by the Convention, all languages were stricken out except the *Latin*. Consequently, the Secretary's notices, in the *Boston Journal* and elsewhere, are correct.

N. S. DAVIS.

CHICAGO, ILL.

QUERY.

WHAT per cent. of ruptured perineums is caused by the passing of the shoulders? Will some physician answer through this journal?

Paris Letter.

THE ACTION OF TESTICULAR LIQUIDS.

PROF. BROWN-SÉQUARD returns again to this subject, which he introduced a year ago to the attention of the Société de Biologie. We said at the time, that whatever Dr. Brown-Séquard proposed, deserved, at least, the serious consideration of scientific men, as his great merits as a physiologist commanded attention, no matter what the first impression was in regard to the matter at present in discussion. Dr. Brown-Séquard, in his present communication, very justly complains that he had been the subject of constant attacks, not only on the part of the daily press, (for whose opinion he does not care), but also in the scientific journals, who should, he says, discuss seriously the researches that he is making, which have no other end in view but to elucidate an important biological problem. These studies the doctor has continued, and they have been continued by others, and we shall try to give a short account of the results obtained: First of all, Brown-Séquard only said that when he made his first injections on himself, he saw a considerable augmentation in power in the flow of urine, and a regularity in defecation. With this, he noticed an increase of muscular force and a facility in doing intellectual work that was greater than it had been for years before. *This is all that he claimed.* The rest was the absurd exaggeration of newspapers.

After the first injections Dr. Brown-Séquard made on himself, he went to England for a while, and on his return here, during the past winter, he was taken ill with a cold, and went to Nice, to pass the worst of the bad weather, during all this he did not make any injections, but finding now that his health was not good he resolved to try them again; he, however, could not do this under the strict rules as to asepsia that he always surrounds himself with in his Paris laboratory, and, therefore, he thought of another

method, which would prevent the dangers of subcutaneous injections, which was *rectal injections*. The results obtained were just as complete and as satisfactory as by the hypodermic method. The injections must be well diluted and the quantity of testicular fluid employed must be greater, but the results are just as good. There is no danger of complications, unless the liquids are used too concentrated, when a slight irritation may be created. He injected, each time, the liquid obtained from the trituration of two testicles of guinea pigs, diluted in fifty centigrammes (cubic) of water. That of other animals can be used (rabbits, dogs, sheep, or calves, etc.). Dr. Brown-Séquard again asserted that the effects produced on him were as stated, but he preferred to give the results of others' work. Leaving aside the rash and foolish attempts of all sorts of people, he only spoke of scientific men who tried it properly. In certain cases of cachexia from malarial fevers its results were wonderful, in others of ataxia locomotrice the amelioration had been remarkable in some cases, while in others no results had been obtained. Good effects were obtained in certain hemiplegias, consecutive to cerebral lesions. In certain dyspepsias, and in cases of incontinence of urine, the results were very evident. M. D'Arsonval had tried it on a celebrated French *savant*, who had been obliged to give up his work, owing to incontinence of urine, and curious shivering attacks, which came on without known reason. After the first injection all his troubles ceased like magic, and he was able to resume his studies. It is above all in anæmias, no matter what their cause, that Dr. Brown-Séquard finds the most use for his method, and he gives a remarkable case of a doctor whose method he does not approve of, but the demonstration of its wonderful efficiency he has seen. The doctor's wife, in question, was worn out after a metrorrhagia, that left her in a complete state of anæmia. He, believing in the virtue of testicular injections, had connection with his wife, and secured the sperm, which he injected under her skin a cubic centimeter at a time, with most wonderful results, and notwithstanding the fact that the metrorrhagia was repeated several times, the same treatment cured the patient every time.

This would seem to establish the fact that sperm has the same action as the testicular fluids of animals secured by trituration, but Dr. Brown-Séquard does not approve of this method, fearing septic complications from the injections. Most of the attempts made during last year were on persons really ill, but the real value of the method should be shown on old and weak persons, and Dr. Brown-Séquard, hopes that those who experiment with his method will publish their observations. In answer to the objection that was made against this system, that it acted by suggestion, Dr. Brown-Séquard does not deny the influences of suggestion, in all the affections of the nervous system, and he repeats that it is on the cerebro spinal axis that the remedy acts, but he has made experiments to prove that it is not suggestion that acts. For instance, in certain cases several injections were needed before any effect was produced. In other cases colored water was used, telling the patient that a remarkable effect would be produced, but none was observed; but on the same patient being given an injection of the real matter, and being told it was nothing, a good effect was produced. Prof. Mairet, also injected the testicular fluids in idiots, who could not understand, and yet it was a success. The conclusion of the whole matter is the same as that announced by the eminent Professor, Brown Séquard, a year ago, that is, *that the testicular fluid has a powerful tonic influence on the system.*

ACCIDENTS FROM CHLOROFORM.

Dr. Laborde, who is the *chef* of the physiological laboratory at the Paris Faculty of Medicine, has been making an interesting communication to the Academy of Medicine on the Preventive Treatment of Accidents that arise from Chloroformization. After having first shown that it is possible to prove by experiments on animals that there are two indications to act upon—one a primitive action, that is an irritant action, produced by the simple contact of the chloroform on the nasal mucous membrane (that is similar to that produced by the aspiration of ammonia), and that may produce nasal or laryngeal reflex action. The second phase is a reflex of arrest of the heart's action, that is produced by the intermediate action of the respiratory centers acting through the pneumogastric nerves on the heart. In the second place, the action of chloroform is toxic, and death is the consequence of an impregnation of all the tissues by the drug. This is explained by the works of Richet and Langlois, who have shown by experiments on animals that death has taken place because expiration in such cases is extremely difficult, and the products that should be carried off by expiration are not eliminated, but accumulate in the blood; and asphyxia is the result of the slightest obstacles to expiration, such as the tongue falling back, etc. There are also other cases of death under chloroform where the fatal accident comes on just at the moment when the surgeon is making his first cut. Here it is also a reflex, that results from the fact that sensibility is not yet abolished, and the nervous exitation produced by a section of the nerves in skin, causes a reflex action that produces an arrest of the heart's action. The clinical application of these facts is what most interests practical physicians, and M. Laborde gives this in his communication made to the academy yesterday. He says that the preventive treatment should obey two indications—1. To oppose the production of reflex action, of nasal or laryngeal origin; and 2. If such reflex action take place, to prevent their consequences by diminishing the irritability of the cardiac and respiratory centers of the medulla and decreasing the inhibiting power of the pneumogastric nerves on the heart.

For the first it has been proposed to use morphine, and it does diminish the peripheric sensibility, and prevents reflex syncope; but the clinicians fear that it predisposes to syncope, and M. Laborde has sough. for a drug that would not have any such actiont With M. Duquesnel he has obtained a special form of *narceine* that is perfectly soluble. (M. Laborde here showed a small bottle of liquid that contained a gramme of narceine in solution.) With this drug he has been able to procure a calm, tranquil sleep, without vomiting or consecutive torpor. In rabbits, one centigramme of this form of narceine has been enough, even when an inferior chloroform has been used. Another method used by M. Laborde is to brush the throat (pharynx and larynx) with a solution of cocaine, and thus prevent the dangerous reflex action produced by the irritating influence and the chloroform. As to diminishing the irritability of the pneumogastrics, two substances were used—one is curare, which, so far, cannot be used in man; but it is to be hoped that a curarine will be produced that can be used on human beings, before long. The second drug used was atropine, which acts well, but

needs to be given in doses that are not compatible with safety.

M. Laborde then spoke of the importance of dosing the chloroform by dropping a measured quantity, drop by drop, constantly, or by using Raphael Dubois' apparatus. A final precaution is to watch the respiration *every moment of the operation*, and the easiest way to do this is to use a pneumo-cardigraph machine, which waves a little flag, that gives the proper indication as the regular action of the respiration and the heart.

VACCINATION FROM GOATS.

The law making vaccination obligatory is becoming more and more urgent, and we must make provision for the day when it will be promulgated, when, in consequence, animal vaccine will everywhere take the place of vaccination from arm to arm. On this account no source from which vaccine can be derived should be neglected, above all, when it comes from an animal that is supposed to possess immunity from a number of the maladies that devastate humanity. This is the goat. M. Hervieux has lately read a paper before the Academy of Medicine showing that the goat can be inoculated with vaccine coming from the calf, or from human beings, and the effect of this inoculation is the same as that of the usual calf vaccine. Then, vaccination from the goat to a person's arm succeeds perfectly, on condition that the inoculation is made as soon as the vaccine is taken from the goat and the pustules have all the characters as the usual classical vaccine matter. The inoculation of goat vaccine that has been kept succeeds as well as the calf vaccine when it is done with the pulp, but not so well when done with the lymph. The vaccination of a person with goat's vaccine, that has already passed through the human body, gives results that represent the most fully-perfected type of the best vaccine matter. In one word, the animals of the goat species are just as apt to offer a good ground for the cultivation of vaccine matter as those of the bovine race, and the advantages are in favor of the goats.

THERAPEUTIC PROBLEMS.

Under this title Dr. Henri Huchard gives some interesting studies that are of great practical value. He supposes a case, of a regular variety, that is constantly seen in practice, and then gives the therapeutical indications and treatment for the case. We resume one of his last lessons of this kind.

Case I.—The patient has digestive troubles, with pyrosis, acid regurgitation, sometimes may vomit, and has gastric pain at night, which comes on two or three hours after eating and regularly. His appetite is good, sometimes very good; thirst constant. This state is often followed by loss of flesh, and may have for consequences stomach ulcer and dilatation of the stomach. If the gastric juice be analyzed, by the present method of sounding the stomach two hours after a trial meal, and the reactives of hydrochloric acid be used, it will be found that there is a hypersecretion of this acid; but, in the absence of this test, practical physicians can readily make the diagnosis by noting that the pain comes on at regular periods, at night, and two or three hours after dinner, and that food often stops it, and meat digestion will be found to proceed rapidly, while the starch foods take a long time to digest.

Diagnosis.—Hyperhydrochloric pseudo-gastralgia.

Therapeutic Indications.—There is here a false periodicity of pain, and quinine does more harm than good. The pain is not purely gastralgic, and therefore opium, etc., should not be given.

As the pain is due to the hyperacidity, give alkaline drugs in large doses to neutralize the acid, and institute the treatment as follows.

Hygienic Treatment.—Prevent all nervous causes, such as emotion, hard brain work, and any work just after meals. Suppress all alcohol, tea, coffee and spices, pickles and acids, salt meats, cheese, and game, as they call up a hypersecretion of gastric fluids. Also all pastry and fatty foods, and the starch foods, as they simply encumber the stomach and cause dilatation; fresh bread is, for the same reason, forbidden. Give milk in small doses, to which add Vichy water. Hashed meat and eggs are useful, as the albumen neutralizes the excess of HCl. They should chew well and for a long time all food, and take a light meal at night, and a small one during the night. They might have five meals, as follows: Morning, glass of milk; 11 A.M., breakfast of hashed meat and eggs and stale or toasted bread; 3. P.M., glass of milk; 7 P.M., light dinner, and during night one or more glasses of milk.

Local Treatment.—Neutralize the acidity by large doses of bicarbonate of soda (ten to twenty grammes a day), or magnesia that is decarbonized acts very well. The alkaline should be given away from meals, when the pain is most intense. Large doses must be insisted upon, as small ones only increase the acidity. As bicarb. soda is soluble, it is sometimes good to combine prepared chalk with the soda to form a protecting coat on the mucous membrane of the stomach. Equal parts may be prescribed. Intestinal atony should be combated by the usual means, and stomach washing out may be performed with alkaline liquids from time to time.

RESEMBLANCE BETWEEN FATIGUE AND HYSTERIA.

M. Féré calls attention to the fact that there is considerable resemblance between ordinary muscular fatigue and hysteria, and it is curious, when one thinks of it, how often contractions are experienced when one is fatigued, and irritability and a host of other symptoms that are seen in hysteria; and this has a practical bearing in that it gives an important therapeutical indication for treatment of hysterical states by complete rest.

TREATMENT OF ANASARCA BY THEOBROMINE.

This substance has caused considerable talk lately in Paris, owing to the trenchant Prof. G. Sée having stated that, "Notwithstanding the assertion of a German druggist, that salicylate of theobromine is more soluble than theobromine, I declare that it is insoluble." This called forth a letter from Dr. Gram, of Copenhagen, to the effect that he had said it was soluble, and that it was so while it contained fifty per cent. of theobromine, and it was very useful. It may be given in wafers, as follows:

℞.—Salicylate of sodii et theobromine, 3 grammes.
Divide in cachets No. 5.
S.—Give one wafer every three hours, and follow it by a drink of water or warm milk.

or, it may be given in solution, as follows:

℞.—Salicylate sodii et theobromine . 3 grammes.
Syr. bitter orange peel . . . . 30 "
Aquæ distill. . . . . 50 "
M. S.—Give a tablespoonful just before each meal.

THOMAS LINN, M.D.

Book Reviews.

NEURALGIA. By E. P. HURD, M.D. 1890. Geo. S. Davis, Detroit, Mich. Cloth, 50c.; paper, 25c. Pp. 153.

Neuralgia is a subject of great practical interest; as one may carry on a pretty large practice for many years without seeing a case of locomotor ataxy, but he can't practise a week without seeing neuralgia. When Anstie's book appeared, it gave so complete a summary of the subject, that anything following it must almost necessarily be built upon that as a foundation. Dr. Hurd has done this, and has paid special attention to the modern French clinicians Germain Sée, Dujardin-Beaumetz, Jaccoud, etc. While there is much material of value in the book, it should have been twice as large to do the subject justice. For instance, Anstie's admirable explanation of the points of Valleix, and their appearance late in the course of an inveterate neuralgia, is one of the things which one never forgets; while the simple statement that some good observers have failed to find these points leaves only an impression of uncertainty upon the mind. Brevity should never be carried so far as to sacrifice the sense.

MINERAL SPRINGS AND HEALTH RESORTS OF CALIFORNIA; with a complete chemical analysis of every important mineral water in the world. Illustrated. A Prize Essay. Annual Prize of the Medical Society of the State of California, Awarded April 20, 1889. By WINSLOW ANDERSON, M.D. San Francisco. The Bancroft Company, Publishers, 1890. Price, $1.50.

After a very good therapeutic index, the book opens with an introductory chapter on mineral springs, their varieties, uses, etc., and baths. He then takes up the California springs, in alphabetical order, giving analyses and other information concerning them. This occupies two hundred and three pages. It is not by any means complete, the majority of the springs named being merely mentioned. Many analyses are given, however, enough to justify the author's assertion that in California nearly every medicinal spring of note may be paralleled. The next seventy-two pages are occupied with analyses of the more important mineral waters of other States and of Europe. Then follow short chapters on the history of California, its climate, and a comparison with corresponding latitudes in the Old World. The book is valuable, and very interesting reading; the style is easy and discursive. This is the first specimen of the publisher's work we have seen; and the paper, typography, and binding are excellent. The illustrations are especially good; while the proof-reading could be improved.

Pamphlets.

Aus der gynækologischen Abtheilung des St. Francis Hospitals in New York. Die Laparatomien des Jahres 1889. Von Dr. George M. Edebohls, New York.

McGill University Annual Calendar. Faculty of Medicine. Fifty-eighth Session, 1890–'91. Montreal, 1890.

The Medical and Dental Register Directory and Intelligencer. Pennsylvania and Delaware. Wm. B. Atkinson, A.M., M.D., Editor. Philadelphia, George Keil, 1214–20 Filbert street, 1890.

Fifth Annual Report of the State Board of Health of the State of Maine. Augusta, 1890.

To fumigate a room slowly pour vinegar on a hot iron shovel. The doors and windows should be open.

The Medical Digest.

FISSURED NIPPLES can be protected from irritation during the nursing period by painting over the fissure a solution of rubber and chloroform.

CAUSES OF INSOMNIA.—These are arranged as follows by Folsom (*Boston Med. and Surg. Jour.*):

1. Perverse habit of sleeplessness.
2. External causes acting through the senses.
3. Excessive cerebration.
4. Reflex, especially indigestion; then genito-urinary.
5. Traumatisms; physical, psychic, or both.
6. Auto-toxemia; from syphilis, constipation, gout, etc., and habitual excess in coffee or drugs.
7. Exhaustion from disease, innutrition, or excess.
8. Vascular derangements; hepatic, cardiac, renal.
9. Vaso-motor.
10. Neurasthenia; causing hallucinations or astigmatism.
11. Neuropathic temperament.
12. Forerunner of mental disease; hysteria, hypochondria, and organic cerebral or spinal affections.
13. A form of insanity; an interchangeable psycho-neurosis.

AMATEUR DOCTORING.—Tuesday's *Globe* reports a case of a boy who had a fall and injured his knee. The sagacious parents of the lad, instead of seeking treatment from a reliable source, resorted to a *friend* who had a "reputation for medical skill." Alas, for bubble reputation. The boy died. Moral: The mere inunction of oil is not an absolute cure for compound fracture of the tibia. The *Globe*, in alluding to the case, remarks upon the folly of persons who put their trust in the medical advice supplied gratis through the columns of a newspaper, and concludes that even supposing the medical oracle be qualified to treat persons in his surgery, the class of persons who apply for information in this manner have not an exact, if graphic, method of description, the result being misleading, and the treatment often exactly wrong. But, of course, no one but the merest empiric would indulge in any such a system, and those who are stupid enough to seek the proffered advice deserve any fate that may befall them.—*Hospital Gazette.*

HINTS TO THE UNFORTUNATE.—A few suggestions, culled from accounts in the daily press, of cases of "accidental death" during the past week, may prove of service to those who are not ingenious enough to think of them for themselves: (1) Mix some coarse flour and strychnine to kill the rats with, then place the mixture in a jar, similar and as near as possible to that containing the family oatmeal. Prepare to shed this mortal coil! (2) Place some laudanum in an empty medicine bottle, and stand it alongside a bottle of physic on a table by your bedside; take a dose, from the nearest bottle, in the dark; ten chances to one it's the laudanum. (3) Pour some carbolic acid into a beer-bottle, cork it, and put it aside in a cool spot; the next person who comes along with "a mouth on him," will find it a vast improvement on common or ginger beer. (4) Smear a piece of bread with phosphorus paste (rough on rats) and leave it in a cupboard well within reach of marauding youngsters; if their lives are insured, you will have no reason to regret the experiment.
—*Hospital Gazette.*

Medical News and Miscellany.

THE Roosevelt Hospital, New York, is being repainted.

SEVEN mad dogs were killed in New York last Saturday.

DR. THOMAS BIDDLE expects to spend the summer at Atlantic City.

AN epidemic resembling yellow fever is raging at Belize, Honduras.

DR. SALSER, of Philadelphia, has been staying at the Dennis, Atlantic City.

THE American Andrological and Syphilographical Association is the very newest.

DRS. ELDREDGE PRICE AND B. B. WILSON are frequent visitors at Longpor,t N. J.

KUESTNER says that the best female catheter is a simple glass tube, open at the ends.

DR. GEORGE F. KRETZ is the handsomest member of the Onanondo Club, in New York.

OXFORD University has decided to admit women to the examinations for the degree of M. B.

THE University of Louvain has added to the medical curriculum a course on medical ethics.

EVIDENCE accumulates as to the conveyance of diphtheria through the water used for drinking.

DR. A. P. BEALER has returned from the sea-side, and will return later for the balance of the season.

DR. D. O. LEWIS, of the Naval Hospital, Washington, has registered at the Star Villa, Cape May.

DR. W. H. BIRNEY, of West Philadelphia, is spending a few weeks at the Cape House, Cape May.

THE *Occidental Medical Times* reports the death of a child over three years old, from the bite of a tarantula.

DR. AND MRS. W. W. WEAVER, of Fortieth street and Woodland avenue, are visiting friends in Hanover.

DR. C. A. FRAME has been mentioned as a com promise candidate for the legislative nomination at Manayunk.

DR. JUDGE, of Philadelphia, went on a fishing excursion to Anglesea lately, and returned with several hundred fish.

DR. JOHN C. HALL, of the Germantown Insane Asylum, is taking a well-earned rest at the Irvington, Atlantic City.

THOUGH "Greenland's icy mountains" have been known a long time, they have never been boomed as a summer resort.

MEDINA reports some very obstinate cases of ulcerative keratitis which yielded to collyria of antipyrin in distilled water.

THE increase of insanity in Berlin has compelled the erection of a new asylum, to accommodate one thousand patients.

DR. JOHN B. SHOBER has been appointed one of the chiefs of the Surgical Department of the University Hospital Dispensary.

FOR metrorrhagia, Lawrence recommends plugging the cervix uteri with iodoform cotton, as simple and devoid of danger and pain.

A FEW cases of cholera continue to be reported in Valencia. There were three new cases and three deaths in Gandia, last week.

DR. EMILY HUNT, of the Philadelphia Hospital, has gone to Lansdowne for her vacation, to the home of her father, Dr. J. G. Hunt.

DR. ROSA KERSCHBAUMER is the first woman licensed to practice medicine in Austria. She is said to be an uncommonly able oculist.

DR. I. N. BROMELL and Mrs. Bromell, of North Fortieth street, will spend a portion of their vacation in Lancaster County and Atlantic City.

THE New York Academy of Medicine, 12 West Thirty first street, New York City, has removed to 17, 19 and 21 West Forty-third street, New York.

DR. BLOOMER, of the State Fencibles, has resigned his position as assistant-surgeon. Dr. Fitzpatrick, an up-town physician, is mentioned as his successor.

WE are still short of issues for August 10 and 17, 1889, and February 1 and March 1, 1890; to any one sending one of the above we still offer a dermatograph.

DR. CHARLES MEIGS WILSON spent the 4th of July at Atlantic City, and also stayed over Sunday; he returned to Philadelphia Monday morning, on the 7.10 train.

DR. FORMAD, the Coroner's physician, sailed from New York for Europe, with his wife, on the steamer Nevada, last week. He will be on the Continent for three months.

A RABID dog in England bit four persons. Three were treated by Pasteur and remain well; the fourth was treated by a constable who had a "remedy," and died of rabies.

H. F. BRADBURY, "Dean of Trinity University in Vermont," has been indicted by the Grand Jury of the United States District Court, Boston, for issuing bogus diplomas.

UNLOOKED-FOR success encourages expectation, and we are strongly of the opinion that too much is expected of electricity in the treatment of diseases of women.—*Lancet.*

CHOLERA is reported from Narbonne. *Le Petit Journal* states that several cases, one of which has resulted fatally, have occurred in the city of Narbonne, Department of Aude.

DR. HENRY M. WETHERILL, Secretary of the State Board of Lunacy, has returned from making a portion of his annual inspection of the insane asylums and hospitals throughout the State.

IN Egypt foundlings are placed in the charge of wet-nurses, who are inspected weekly and fined if either child or nurse is not well and in good condition. The plan is said to work well.

THE *Pacific Medical Journal* reports a case in which a man received a knife-wound penetrating the heart, continued the fight some time, and ran about one hundred yards before he fell, and died.

AN elderly married couple, who had long lived childless, journeyed to Germany, where, to their great surprise, the wife became a mother.

This item will doubtless have the effect of diverting the stream of travel from Germany to other lands less famed for germs.

DR. MARTIN, New York Board of Health chemist, decides that the sickness among those who ate Brinkman's ice cream was caused by the fermentation of old cream that had been left in the freezer.

TO REMOVE WARTS.—According to the American *Therapeutic Gazette*, castor oil, constantly applied for two to four or six weeks—that is once a day—has not failed in any case of any size or long standing.

A SENSATION has been created in Vienne by the discovery that the waters of the river Leitha, from Pottendorf to Landegg, are poisonous. Bathers have contracted pustular eruptions covering the entire body.

THE authorities of San Mateo County, California, are trying to make Dr. Whitwell put an eight-foot wall around his inebriate hospital and keep a guard at the gates. Their right to do so is to be tested in the courts.

DR. PORTER, of Fort Wayne, trephined a lad for epilepsy July 2. Considerable fluid was evacuated, and at last accounts the patient was doing well. The case was a severe one, from twenty-five to fifty spasms occurring daily.

SEVEN years' apprenticeship is required in England for the evolution of a journeyman plumber; and how any one can spend so long a time and learn so little is an inscrutable mystery to every one who subsequently employs him.

THE English scientific world is very much exercised over an invention purporting to be a remarkable instrument solving the problem of visual telegraphy. It is the joint invention of Prof. Hughes, F.R.S., and W. H. Preece, F.R.S., and is a fraud.

JACQUES, the French soldier, who is emulating Succi, the Italian faster, at the Aquarium, has completed the first two weeks of his proposed forty-two days' abstinence from food. He has lost sixteen pounds and five ounces. He is well, and confident of success.

THE outbreak of cholera in Spain has aroused the *British Medical Journal* to call for an improvement of London's water supply. The journal states that the last cholera epidemic cost London six thousand lives, and was traced to the pollution of the river Lee by one family.

JAMES MELVIN, a war veteran, portions of whose body had become ossified within a few years, and for whom a pension of $100 a month specially passed Congress last month, died, on Saturday, in Concord, Massachusetts. His suffering for several years past were excruciating.

DR. GREGORY HOVNANIAN, of Philadelphia, a native of Armenia, is at the Howell House, Asbury Park, where he will remain until August, when he will take the position of resident physician in the Blockley Hospital, at Philadelphia. He is a graduate of the Medico-Chirurgical College.

A DANGEROUS MINERAL WATER.—William T. Jeffries and S. S. Jordan have filed a bill in equity in the United States Circuit Court against the Geneva Magnetic Water Company, of Washington, D. C., W. L. Cresson, of Norristown, and Julius Hugle and J. C. Ergood, of Washington, to recover moneys in an odd business transaction. They purchased rights for the sale of the magnetic water in certain counties, understanding that it contained no organic matter, and, as they claim, have since discovered that it is injurious.

DR. BRUSTAR has reported to the Board of Health that 148 vessels, containing 2,822 passengers, were passed by him during the month of June. It will require $126,684 to conduct the Board of Health in 1891, according to the estimate of the Finance Committee. The revenue from all sources is estimated at $43,850.

DR. HENRY H. LONGSTREET, one of the oldest and most prominent physicians in Burlington county, died, last Sunday, after a brief illness. He had been in failing health for more than a year past, but had been confined to his home only a few days prior to his death. He was born in Monmouth county, New Jersey, January 11, 1819.

THE daughter of a prominent physician was admitted to the Pasteur Institute in New York last Sunday. She was bitten on the hand some time ago by a pet dog. The Cincinnati man, who was under treatment by Dr. Gibier for the past three weeks, was discharged last Sunday in perfect health. All the patients now under treatment are doing well.

PHILADELPHIA'S MORTALITY.—A record of interments in this city during the past six months: The weekly reports of interments in this city, published in THE TIMES AND REGISTER from week to week, have been collated, and the following tables have been prepared to contrast the number of interments during the past six months with corresponding periods of 1888 and 1889:

Year.	1888.	1889.	1890.
INTERMENTS.	10,509	10,336	11,749
PRINCIPAL CAUSES OF DEATH.			
Alcoholism	43	31	43
Apoplexy	259	245	288
Bright's disease	225	225	288
Cancers	247	263	264
Casualties	187	169	182
Congestion of the brain	178	180	155
" " lungs	133	128	147
Consumption of the lungs	1,491	1,345	1,552
Convulsions	438	468	441
Croup	129	168	231
Cholera infantum	104	190	261
Debility	285	298	265
Diarrhœa	79	42	54
Diphtheria	170	176	250
Drowned	41	46	45
Dropsy	139	108	91
Dysentery	21	12	24
Diseases of the heart	441	400	612
Fever—typhoid	318	351	391
" scarlet	97	195	74
Inflammation of the brain	379	389	409
" " stomach and bowels	323	310	344
" " lungs	1,048	1,005	1,296
Influenza	.....	.....	146
Inanition	238	235	252
Marasmus	346	301	367
Measles	10	62	101
Old age	570	428	479
Paralysis	271	197	214
Suicide	48	54	49
Teething	36	48	63
Tumors	51	43	54
Whooping-cough	60	84	71
AGES.			
Under 1 year	2,214	2,343	2,576
Between 1 and 2	514	595	693
" 2 " 5	577	656	724
" 5 " 10	281	337	334
" 10 " 15	176	269	166
" 15 " 20	288	341	335
" 20 " 30	1,110	997	1,216
" 30 " 40	1,190	957	1,112
" 40 " 50	978	870	1,055
" 50 " 60	933	827	950
" 60 " 70	1,030	953	1,112
" 70 " 80	875	791	911
" 80 " 90	427	429	476
" 90 " 100	60	59	83
" 100 " 110	5	2	6
Males	5,504	5,271	6,007
Females	5,106	5,065	5,742
Boys	2,220	2,357	2,538
Girls	1,881	2,094	2,283
Born in the United States	7,576	7,616	8,719
" foreign countries	2,606	2,232	2,734
Birth place unknown	417	398	396
People of color	562	592	634

W. E. CHENERY, son of Dr. E. Chenery, of Boston, took his medical degree at Harvard on the 25th ult., and at once left for Europe, where he will spend the summer in visiting hospitals, studying, and observation. He has a sister, Hattie M., an art teacher, who has been abroad for more than a year in pursuit of her studies, with whom he hopes to return later in the fall.

JOHN WARSTER, of 1624 Dickinson street, Philadelphia, was drowned last Sunday at Atlantic City. Four doctors tried in vain to restore him to consciousness after rescuing him from the water. In these cases far more could be done if people would not crowd around the rescued. Fully 1,000 people were seen around this man by one of the publishers of this journal, so that it was almost impossible for air to get to him.

THE Health Department of New York has appointed fifty physicians of the summer corps, and on Wednesday they began their work among the poor of the tenements. Of the inestimable value of their work, which will continue during July and August, the following figures from last year will convey some idea: 264,000 families were visited, 16,148 sick people were prescribed for, 12,000 tickets for free excursions were distributed, and 50,000 circulars, containing simple instructions for the care of children during the hot months, were given away. And this work was chiefly among those unable, through poverty, to secure medical treatment and medicine, which the Board of Health furnished free. Through the co operation of the King's Daughters this season, even more will be completed than was last year.

THE CITY'S HEALTH.—During the week ending July 5, the causes of death reported were as follows:

Cholera infantum	141
Phthisis	67
Marasmus	44
Heart disease	28
Inanition	26
Old age	26
Inflammation of brain	22
Convulsions	20
Inflammation of stomach and bowels	19
Bright's disease	16
Debility	15
Typhoid fever	13
Congestion of the brain	12
Pneumonia	12
Cancer	8
Diarrhœa	8
Diphtheria	8
Dysentery	8
Bronchitis	8
Casualties	7
Teething	7
Apoplexy	6
Peritonitis	6
Paralysis	6
Cyanosis	5
Cirrhosis	4
Whooping-cough	4
Alcoholism	3
Congestion of lungs	3
Diabetes	3
Dropsy	3
Drowned	3
Epilepsy	3
Insanity	3
Obstruction of bowels	3
Softening of brain	3
Other causes	50
Total	623
Adults	253
Minors	370
Under one year	276
Total last week	526
Same week in 1889	422

DURING twenty years 3,503 prostitutes were registered at Brussels. Of these, when asked their reason for living in this way, 1,523 attributed it to poverty, 1,118 to sexual appetite, 420 attributed their fall to bad company, 316 tired of hard work and little pay, 101 abandoned by lovers, 10 quarreled with parents, 7 left by husbands, 4 quarreled with guardians, 3 had family quarrels, 2 were compelled to prostitute themselves by their husbands, and 1 by her parents. Nearly all said they would be only too glad to work if work could be secured. One of the greatest difficulties was that the markets were flooded with the products of convents, which undersold the work of women who had to support themselves. The strict regulation of prostitution exercised a wholesome effect in deterring women from entering this life. Poverty in Belgium renders prostitution a hard necessity; the alternative being starvation.

To Contributors and Correspondents.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from June 15, 1890, to June 28, 1890.

By direction of the Secretary of War, leave of absence for two months, to take effect August 6, 1890, is granted First Lieutenant William N. Suter, Assistant-Surgeon. Par. 3, S. O. 149, A. G. O., June 26, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending June 28, 1890.

John E. Page; Berryville, Va.; Robert M. Kennedy, Pottsville, Pa.; James M. Whitfield, Richmond, Va.; Lewis H. Stone, Litchfield, Conn.—commissioned Assistant-Surgeons in the Navy.

ATLEE, LOUIS W., Assistant-Surgeon. Detached from the U. S. S. "Marion," and granted three months' leave.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the three weeks ending June 21, 1890.

GASSAWAY, J. M., Surgeon. When relieved at Cairo, Ill., to proceed to New Orleans, La., and assume command of the service at that station, June 4, 1890.

STONER, G. W., Surgeon. Granted leave of absence for three days, June 18, 1890.

WASDIN, EUGENE, Passed Assistant Surgeon. Granted leave of absence for fourteen days, June 5 and 10, 1890.

WHITE, J. H., Passed Assistant-Surgeon. To proceed to Savannah, Ga., on special duty, June 9, 1890.

HEATH, F. C., Assistant-Surgeon. Granted leave of absence for fifty-eight days, June 10, 1890.

MAGRUDER, G. M., Assistant-Surgeon. Granted leave of absence for twenty days, June 2, 1890. Ordered to examination for promotion, June 5, 1890.

WOODWARD, R. M., Assistant-Surgeon. Relieved from duty at Chicago, Ill., to assume command of service at Cairo, Ill., June 4, 1890.

CONDICT, A. W., Assistant-Surgeon. Upon expiration of leave of absence, to report to Medical officer in command at Chicago, Ill., for duty, June 4, 1890.

RESIGNATION.

HEATH, F. C., Assistant-Surgeon. Resignation accepted by the President (to take effect Aug. 31, 1890), June 10, 1890.

Medical Index.

A weekly list of the more important and practical articles appearing in the contemporary foreign and domestic medical journals.

Physiologische Bemerkungen über die Hypertrophie und Dilation des Herzens, Frey. Deutsches Archiv f. Klin. Med.
Perinterine and perityphlitic abscesses, Mayo. Northw. Lanc.
Prevention of puerperal fever, Britton. Canada Lancet.
Paralysis of the superior oblique, cured by tenotomy of the superior rectus of the same eye, Webster. Med. Rec.
Prophylaxie de la syphilis et de la prostitution, Mericourt. Bulletin de l'Academie de Med.
Posterior displacements of uterus, Boldt. Amer. Jour. Obst.
Prolapse of the female urethra, and true cystocele or vesico-vaginal hernia, Munde. *Ibid.*
Pleuritic effusions, Atkins. Amer. Pract. and News.
Pyosalpynx, intest. laceration, omental grafts, Carpenter. *Ib.*
Phthisis pulmonalis, Robison. The Med. Age.
Précis of operations performed in wards of the first surgeon Med. Coll. Hosp. during year 1890, McLeod. Ind. Med. Gaz.
Pleuresie interlobaire gauche suppurée, Letulle. La Med. Mod.
Points in the study of inebriety, Field. N. Y. Med. Jour.
Poisoning by oil of cedar, Ellison. Therap. Gaz.
Physician on the witness stand, Hammond. St. Louis Cour.
Pruritis following an electric shock, Grindon. *Ibid.*
Resection of cæcum for carcinoma, Senn. J. Am. Med. Ass'n.
Rapid dilation of the uterus, Carpenter. Cleveland Med. Gaz.
Removal of a fibrous polypus from the base of skull. Girdlestone. Austral. Med. Jour.
Railway sanitation, Conn. Jour. Nat. Ass'n Railw. Surg.
Ricerche sulla vitalita del virus tetanico nelle acque, Schwarz. La Rif. Med.
Retinal detachments injection of iodine into vitreous, Phillips. Atlanta Med. Surg. Jour.
Relation of formative matter to disease, Foote. Kansas Med. J.
Rougeole et rubeole, Talamon. La Med. Mod.
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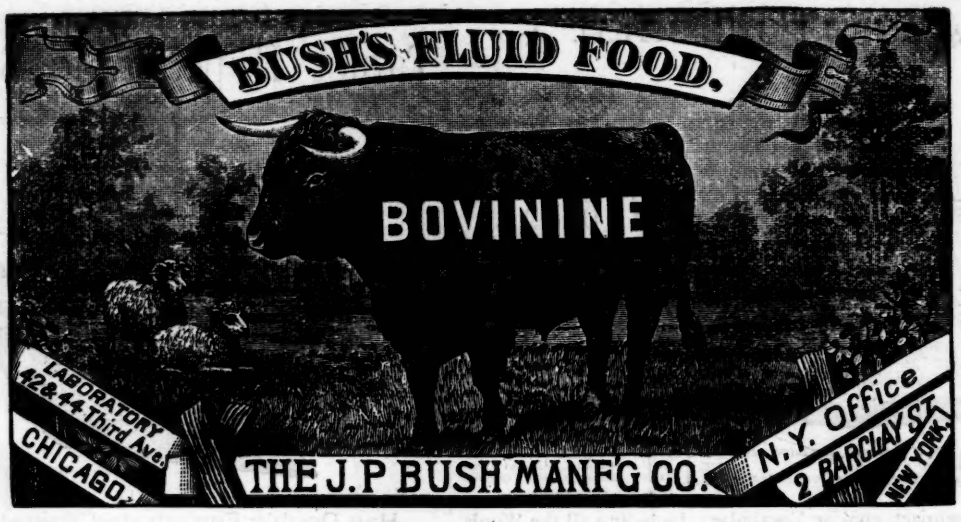
Notes and Items.

VIRGIL MCDAVITT, M.D., Quincy, Ills., says "I usually find Celerina to be a very agreeable and acceptable nerve tonic, quieting and calming nervous irritability and causing sleep oftentimes after spells of continued wakefulness, adapted to use in much the same cases as valerian, assafœtida, etc.; not a cure-all but a valuable addition to our armamentarium in the treatment of a class of cases which are often most vexatious and trying to the physician and worrying to the patient. In these cases I have often prescribed it alone, or combined with other remedies, with much success."

A REMEDY FOR BRAIN FAG.—The statement has been made that more business and professional men are breaking down from overwork and exhausted nerve power than from any other known cause. The high pressure of the times, and the sharpness of the struggle for wealth or position lead men to overestimate and overtax their powers of endurance, and, in spite of warnings, they persist in keeping up the self-imposed delusion until there comes either a physical or mental breakdown, or both. Every physician has knowledge of such cases. We have in mind the case of a professor of music in this city, who has a national reputation. One especially distressing feature of his case was "paroxysms of fright," with which he awakened each morning at four, and the dread of which haunted and depressed him during the day. Complete relief from all responsibility was insisted upon, and the usual remedies for nerve exhaustion were given regularly and persistently, but they seemed to give only negative results. He gained in flesh, but not in nervous force and steadiness. At length he was ordered Freligh's tonic in ten-drop doses three times in the day, and in a very brief time marked improvement was apparent. He now regards himself as fully restored, and has gone away for a month—much against his will, as he protested that the continued rest was needless. We have used this remedy—the formula of which is freely given—in a variety of nervous disorders with great satisfaction, and should still esteem it highly were it only for its well-nigh marvelous effect in the above case.—*Mass. Med. Jour.*

Soothes Ulcerated and Cancerous Conditions of the Digestive Tract.



Indispensable in Phthisis, Pneumonia and Acute Bronchitis.

RAW FOOD EXTRACTS AND THEIR VALUE.

FROM AN ESSAY READ BEFORE THE AMERICAN MEDICAL ASSOCIATION AT WASHINGTON, D. C., MAY 6th, 1884,

BY B. N. TOWLE, M.D, OF BOSTON.

"Nervous debility and neuralgia are often the results of nerve starvation. They are now, more than ever, the dread of every intelligent physician, and the terror of all business men. The weary hours of pain, and the sleepless nights of those suffering from nervous diseases, are but the beseechings of an exhausted nerve for food. Hungry and starved, they make their wants known by the pain they set up as their only agonizing cry; and no medication will give permanent relief until the hunger is satisfied.

Our research, then, must be to find a more easily digested and assimilated food.

Observation seems to sanction the fact that vegetable food elements are more readily assimilated by persons of feeble digestion than are the animal food elements, and especially when they have undergone the digestive process in the stomachs of healthy cattle. The juices of these animals, when healthy and fat, *must* contain all the food elements in a state of solution most perfect, and freed from all insoluble portions, and hence in a form more easily assimilated than any other known food.

I have used Raw Food Extracts for more than eight years, in a large number and variety of cases, and in no case of malnutrition has it failed to give relief.

I have given it to patients continuously for months, with signal benefit, especially in complicated cases of dyspepsia, attended with epigastric uneasiness arising from enervation, and in nervous debility of long standing. The sudden and full relief this food affords patients who have a constant faintness at the stomach, even immediately after taking food, shows how readily it is assimilated. This faintness is a form of hunger, and is the cry of the tissues for food, not quantity but quality—a food that the famishing tissues can appropriate and thrive upon.

Raw Food is equally adapted to lingering acute diseases. I have used it in the troublesome sequelæ of scarlatina, where there was exhaustion from abscesses in the vicinity of the carotid and submaxillary glands; and in protracted convalescence from typhoid fever, with marked advantage. The cases that I especially value it in are laryngeal consumption and nervous exhaustion, in which cases there is always more or less derangement of the digestive tract, such as pain in the stomach, constipation, eructation of gases, distress after taking food, etc. Raw Food should be taken with each meal, the patients taking such other food as they can readily digest, in quantities suited to the individual case.

It adds much to the nutrition of the patient, overcomes the constipation, subdues the nervousness by increasing the strength, and is just the amount added which is required to secure success."

The unsolicited opinion of Surgeon-General Murray, U. S. A. (Retired).

"It gives me pleasure to give my testimony to the very great value of BOVININE as a dietetic preparation. I have used it for more than a year in a very aggravated case of nervous dyspepsia, and have found it to answer very much better than any of the many preparations or extracts of meat before used.

I find that it keeps perfectly even in the warmest weather; is very easily prepared for administration, and it has proved acceptable and beneficial in every case in which I have known it to be given."

PHILADELPHIA, PA., March 1st, 1887.

Very respectfully and truly yours,
R. MURRAY, M.D.,
Surgeon General (Retired) U. S. A.

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PROFITS arise from two sources: the investments of the Reserve Fund, and from lapses. The law of human contingencies, as illustrated by all Insurance Companies, shows the lapse element to be comparatively uniform, and a steady source of profit. All funds accruing from these sources are for the sole benefit of the bond-holders, as this is a strictly co-operative company. Not one dollar of the monthly instalments can be devoted to any other purpose than the redemption of Bonds.

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THE SYSTEM OLD—THE APPLICATION NEW. The System is the same as that applied to Life Insurance, only here the Bond dies when its number is reached, instead of the man; *he* lives to get and enjoy his money; or as with Fire Insurance—one house burns down, the contributions of the other policy-holders pay for it. The principle is the same as with the fraternal societies, which issue endowment certificates; but the necessity for medical examinations, initiations, oaths and other secret work and lodge meetings is done away with, and the benefits of the financial features reserved.

FAILURE IMPOSSIBLE. The law of averages, which has contributed so largely to the success of all varieties of Insurance Companies, enabling them to accumulate enormous reserves and pay large sums to the insured, is the immutual law of nature that constitutes the foundation upon which we build. No loss can accrue to any bond-holder, except by his neglect to pay his monthly instalments and dues. If these are not paid on or before the day specified, the bond lapses.

AN EQUITABLE FEATURE. If any person makes application before his Bond lapses, he will have every dollar of the monthly instalments he has paid in refunded. No person need lose his investment through inability to keep up the payments; the lapses occur only through carelessness.

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MONTHLY INSTALMENTS. The first monthly instalment, the premium, and first quarter's dues, are paid when the Bond is purchased. All subsequent payments are due and payable monthly, on or before the date of issue of Bond, without notice; at the office of the Company, or a designated depository. No extra assessments are ever made.

PAYMENTS. The following table will show the amount of premium, quarterly dues, and monthly instalments:

	Amount.	Premium.	Quarterly Dues.	Monthly Instalments.
Series "A"—	$100.00	2	$ .50	$ .50
" "B"—	500.00	5	.75	2.00
" "C"—	1000.00	10	1.00	4.00

AMOUNT PAID AT REDEMPTION BONDS.

SERIES:	"A"	"B"	"C"
If redeemed during 1st year,	$24.00	$243.50	$506.00
" " 2d "	40.00	297.50	610.00
" " 3d "	56.00	351.50	714.00
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Amount paid on each assessment.	*Sick benefit paid weekly after six months' membership.*	*Death or disability benefit paid after sixty days.*	*Benefit paid at end of six years.*	*Amount loaned to members after sixty days' membership.*
$ 1 00	$ 5 00	$ 125 00	$ 250 00	$ 250 00
2 00	10 00	250 00	500 00	500 00
4 00	25 00	500 00	1000 00	1000 00
10 00	50 00	1250 00	2500 00	2500 00
20 00	80 00	2500 00	5000 00	5000 00

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Medical Examination Fee, ... 1 50
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Members may buy or build a home for a monthly payment of a little more than they now pay for rent. For instance, suppose we loan you $2,500.00 to buy a house,

The Assessment would be $10 00
The Interest, payable monthly, would be . . . 12 50

Add the cost of Initiation Fee, $5.00, Medical Examination, $1.50, and Dues, $1.00 per quarter.

This feature is similar to Building and Loan Associations, but the Order is not liable to the same danger of dismemberment. The members of the strongest Building Association could destroy it by withdrawal, simply giving thirty days' notice of their desire to do so; whereas in this Association no money is paid out in less than five years, except in case of sickness, or death, or disability of its members.

It provides a sure method of saving small amounts of money, and produces a larger income from such savings than by any other plan, and is especially adapted to benefit young men starting in life.

It provides for its sick and disabled members, and provides for the families of members who may be overtaken by death.

Its laws protect its finances, as its funds are held in trust, and no officer can draw them or any part of them.

The expenses of the Subordinate Lodges are paid by the dues of $4.00 a year. The fraternity is safer than a bank, as it has nothing to fear from a run on its treasury, for until you have been a member for six years you have no claim on it, except in case of sickness, total disability, or death.

The Reserve Fund.

Thirty per cent. of the amount received from each assessment is set aside for the Reserve Fund, none of which can be used for the first five years, and after that a very small proportion each month.

After deducting 30 per cent. for the Reserve Fund, 50 per cent. of the balance is set aside for the Loan Fund, and from this fund loans are made to members in accordance with the laws of the Order.

Membership.

All persons of sound health and moral character, over 15 and under 65 years of age, who pass an approved medical examination may become members. Persons under 15 and over 65 years of age, or those who do not pass the medical examination, may become members provided they waive claims for sick benefits or total disability or death benefits.

Assessments.

Notices of assessments will be sent to each member on the first day of every month. It is calculated that about one assessment per month will be sufficient to meet the requirements, but if more than one should be needed, the extra assessment will be made at the same time with the regular assessment.

Assessments are due and payable on the day of their date, and if not paid on or before the 28th of that month, the member is suspended. A member suspended for non-payment of assessments or dues can be reinstated, provided application for reinstatement is made within 28 days after the date of their suspension, and a fine of 50 per cent. of the amount of such assessments and dues paid.

The Officers of the Grand Lodge are men of well-known integrity, ability and good business standing in the community, and all Financial Officers are bonded by responsible Surety Companies in twice the amount of money they are likely to have in their possession at any time. Every department of the work is conducted in a wise, carful and conservative manner.

Believing this to be the best beneficial organization in existence, owing to its liberal features and sound conservative policy, meeting all wants and conditions of man, we urge you to join our Order.

Physicians wishing to serve as Examiners should apply to the Medical Examiner of the Grand Lodge.

NOTES ABOUT SOME SEASONABLE REMEDIES FOR PREVALENT SUMMER DISEASES.

Among the diseases that are especially prevalent during the hot weather are the intestinal disturbances: diarrhoea, dysentery, intestinal colic, gastric irritability, etc.

The remedies commended for these affections are manifold, and must necessarily vary with the individual conditions. Simplicity of medicinal treatment in these cases is, we believe, practiced by the most intelligent physicians. As easily available, eligible and convenient remedies, when other than dietetic or hygienic measures are desirable, we may mention the following, supplied by us, which have proved efficient in the experience of many physicians:

Chloranodyne, a preparation of much value as a sedative, anodyne and antispasmodic in disturbances of the digestive tract incident to summer. The formula is an improvement upon the chlorodyne of J. Collis Browne, M.R.C.S.L., which has long been established in favor abroad.

Among intestinal sedatives tablets of bismuth subcarbonate and subnitrate, antacid tablets, soda-mint tablets, Dover powder tablets, pepsin and bismuth tablets, arsenite of copper tablets, and pepsinum purum tablets or pepsin cordial when diarrhœa is dependent on fermentation of undigested food, offer a choice for selection to meet the varying indications present.

Our pepsin cordial presents the ferment in an especially desirable form for administration, being permanent and palatable, as well as possessing in a high degree the proteolytic properties of the gastric juice.

The antiseptic and sedative treatment of intestinal disorders is a deservedly popular one, and in this class of remedies we would remind physicians of the antiseptic yellow oxide of mercury tablets which have proved of so much service in septic forms of dyspepsia, and prophylactic against diarrhoea and dysentery.

For local use mercuric iodide tablets will be found convenient for making solutions of any desired strength, and for purposes of disinfection of excretions, or surroundings, antiseptic liquid or thiocamph may be employed to advantage.

There is another class of remedies, to which we wish to ask especial attention, of much service in inducing emesis in children or adults in which overloading of the stomach or intestines leads to diarrhoea. A most reliable and certain emetic for this condition is normal liquid ipecac (standard two-per-cent. emetine). This is available also in croup incident to the exposure of children to sudden changes of temperature and the out-door life of summer.

For use as an expectorant for coughs and colds, two recent remedies are being largely employed, viz.: cocillana and Goanese ipecac.

Information as to any of these remedies in the form of descriptive circulars and samples for testing when desired, will be furnished to physicians on request.

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